The Journal
Michigan
STATE MEDICAL SOCIETY

March, 1959
Volume 58
Number 3

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WASHTENAW COUNTY MEDICAL SOCIETY

IN THREATENED AND HABITUAL ABORTION:

"...high-potency progestational agents [such as NORLUTIN] frequently have the power, when administered in adequate dosage, to arrest and suspend myometrial contractions incident to spontaneous abortion."* This is the conclusion of a group of investigators who studied patients with threatened (and in some cases habitual) abortion. The study group was compared with a control group which was treated with bed rest and mild sedation only. In this control group, the salvage rate was 15.5 per cent. In the group receiving NORLUTIN, 19 of 45 pregnancies were continued—a salvage rate of 42.2 per cent

PREGNANCY SALVAGE WITH NORLUTIN

	Control Group (Treated with bed rest and mild sedation)	Study Group (Treated with NORLUTIN)
Total number of pregnancies	297	45
Number of pregnancies salvaged	46	19
Percentage of pregnancies salvaged	15.5%	42.2%

Adapted from Hodgkinson *et al.**

Indications for NORLUTIN: Conditions involving deficiency of progesterone, such as primary and secondary amenorrhea, menstrual irregularity, functional uterine bleeding, endocrine infertility, habitual abortion, threatened abortion, premenstrual tension, and dysmenorrhea.

Packaging: 5-mg. scored tablets, bottles of 30.

*Hodgkinson, C. P.; Igna, E. J., & Bukeavich, A. P.: *Ann. New York Acad. Sc.* 71:753, 1958.

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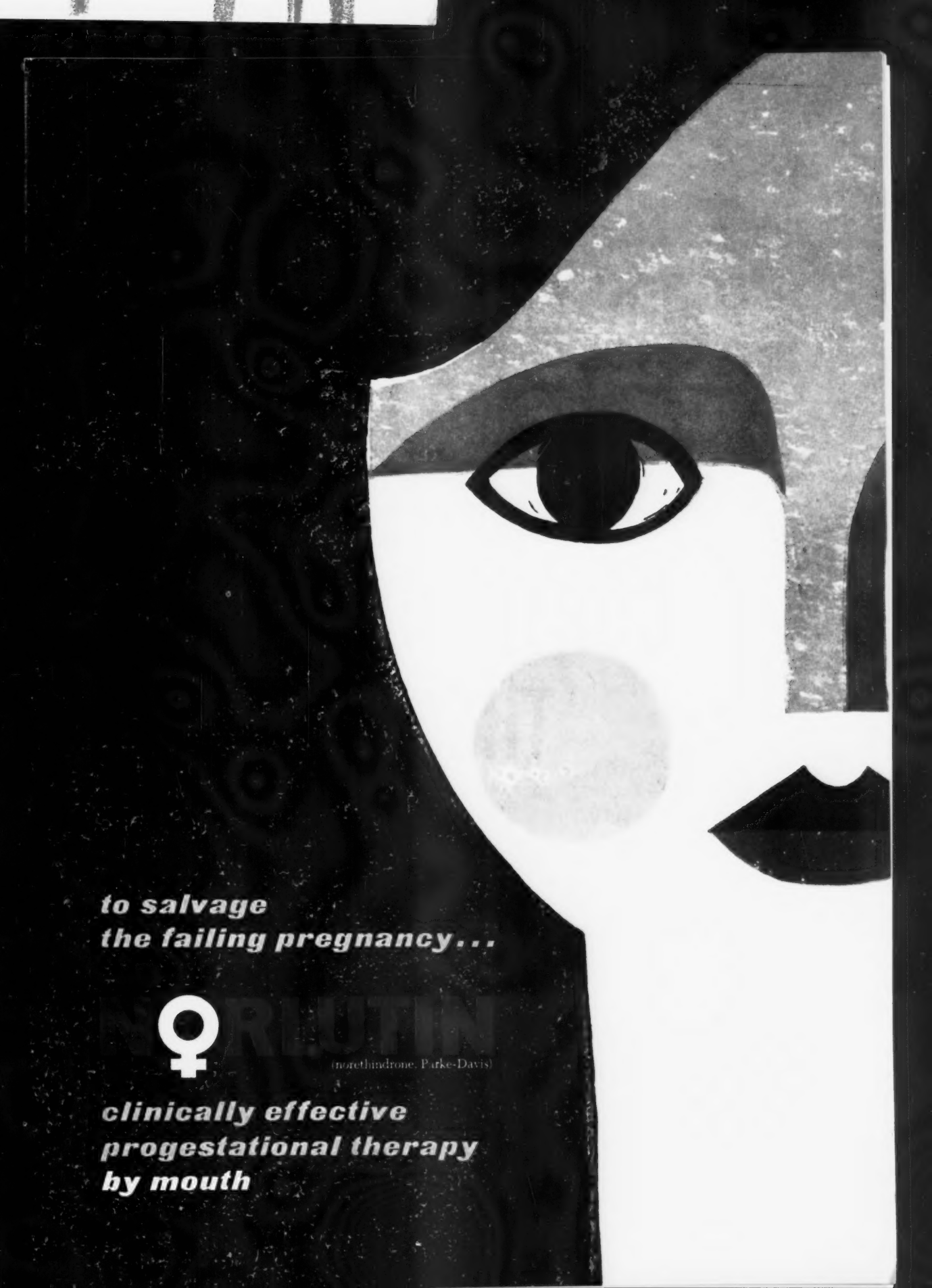
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the failing pregnancy...
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(norethindrone, Parke-Davis)
clinically effective
progestational therapy
by mouth

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 MARCH, 1959 NUMBER 3

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Table of Contents

Washtenaw County Medical Society
Frederick A. Coller, M.D., and *Richard A. Sinnott, Jr., M.D.* 363

Ventriculo-Venous Shunt Using the Holter Valve as a Treatment of Hydrocephalus
Kenneth W. Carrington, M.D. 373

Experience with Diverticulitis over a Ten-Year Period
B. C. Payne, M.D., and *James Beatty, M.D.* 377

The Physiology of Micturition
Reed M. Nesbit, M.D., and *Jack Lapides, M.D.* 384

Abuse of Single Whole Blood Transfusions
William Umiker, M.D., and *Paul Hodgson, M.D.* 389

An Evaluation of Medications Commonly Used in Asthma
John M. Sheldon, M.D., L. Dell Henry, M.D., and *James A. McLean, M.D.* 397

The Recognition and Correction of Water and Salt Deficits in Surgical Patients
Robert E. L. Berry, M.D. 403

Care of the Preschool Child's Eyes
Harold F. Falls, M.D. 412

Acute Appendicitis
J. L. Ponka, M.D., H. L. Shields, M.D., and *D. M. Evans, M.D.* 415

President's Message
Thanks, Jay! 417
Editorial:
Medical and Hospital Service in Washtenaw County 418
Hospital Costs Again 420
Report on Hospitals 421
New Dresses 422
Income Taxes 422
Coming Legislation 423
Michigan State Medical Society—Annual Session of the Council, January 30, 31, 1959 424
Medical Meetings and Clinic Days 442
Michigan's Department of Health 448
In Memoriam 452
Communication 454
Legal Opinion 456
News Medical 458
The Doctor's Library 485

You and Your Business 308
Governor's Hospital Cost Survey 312
MSMS Members Like Group Life Insurance Plan 322
Medicolegal Forms 328
PR Report 335
Hippocrates and More!
Robert D. Swanson, D.D. 342
AMA Washington Letter 350
Editorial Comment 352

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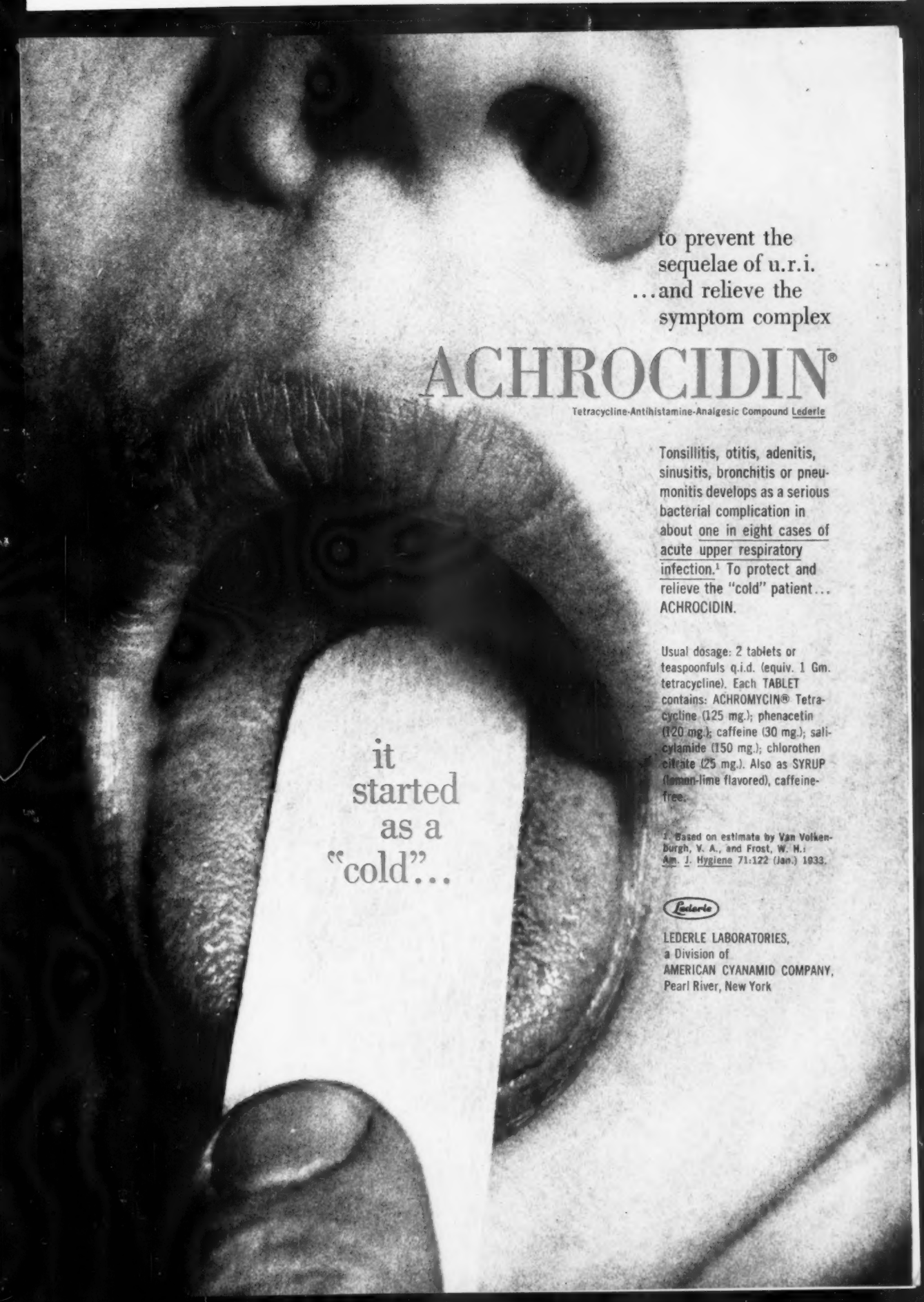

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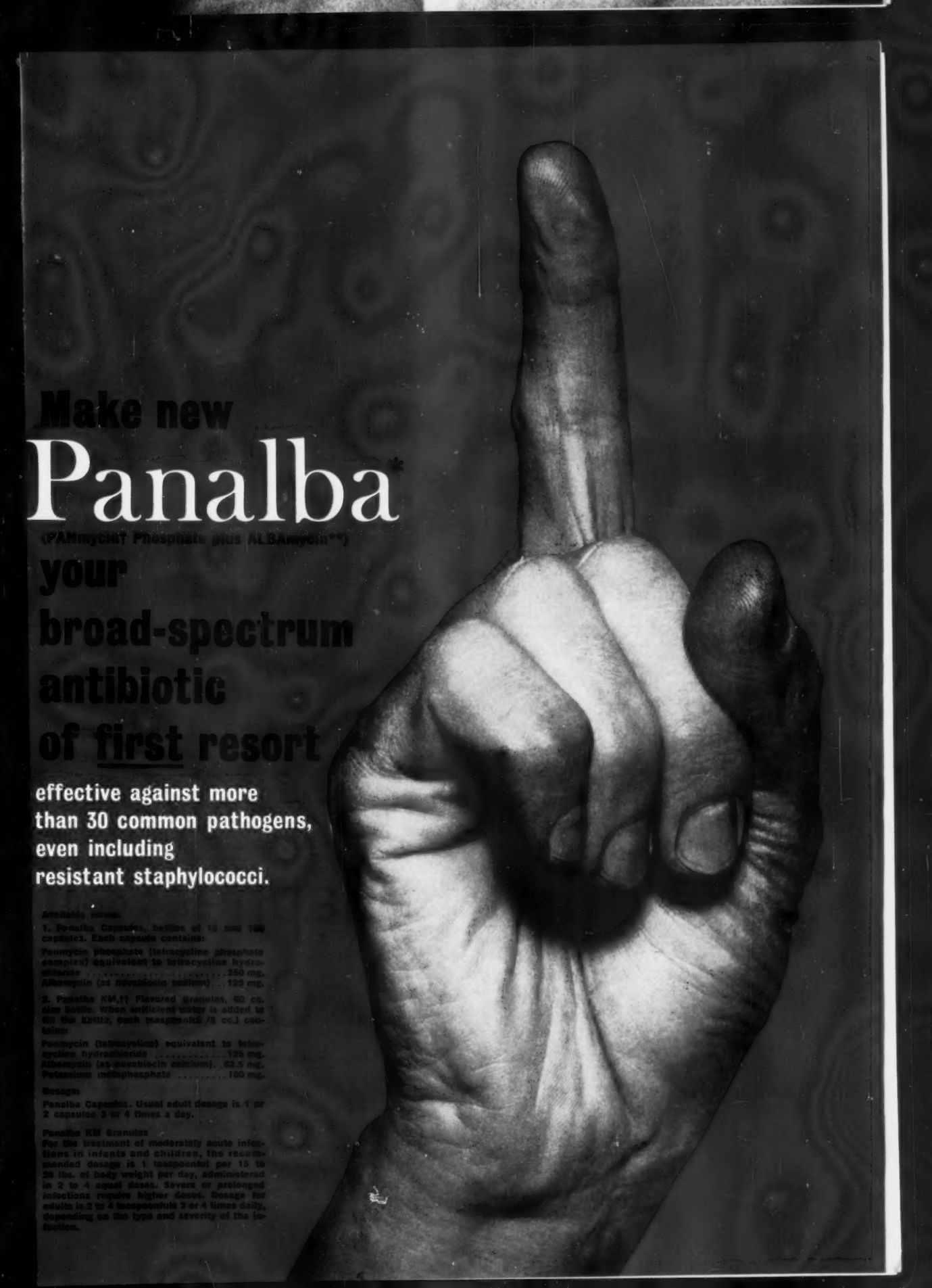
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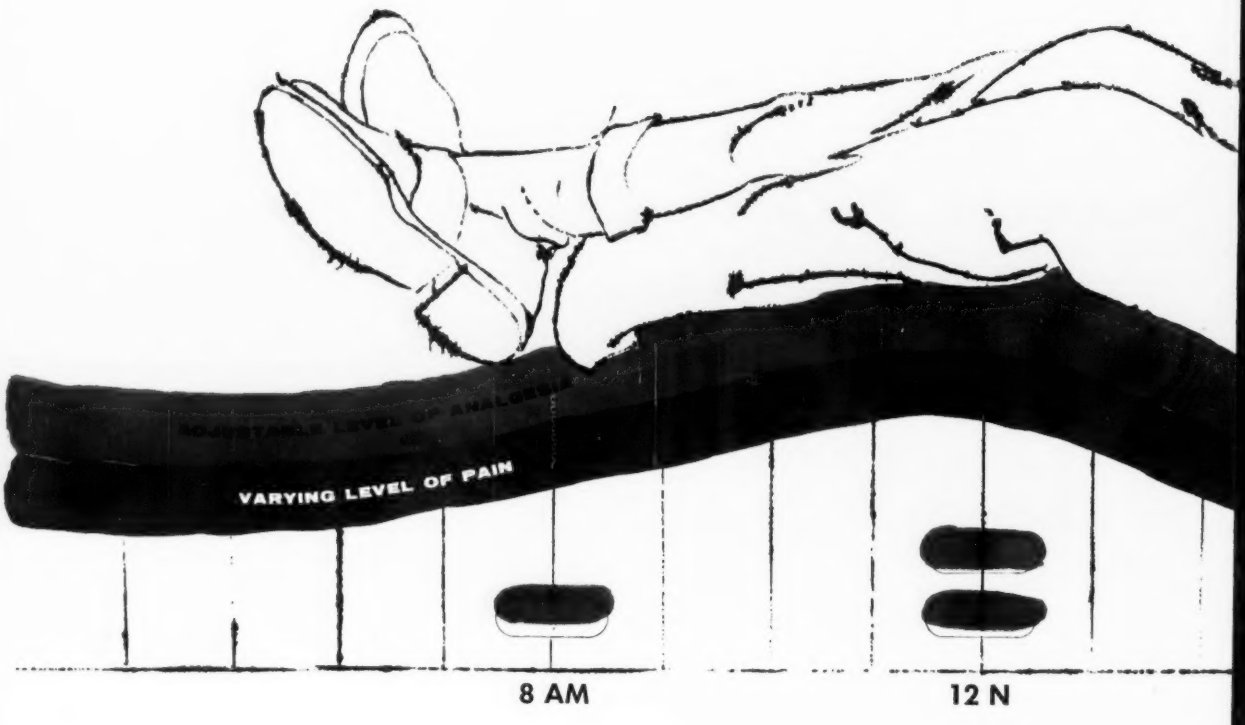

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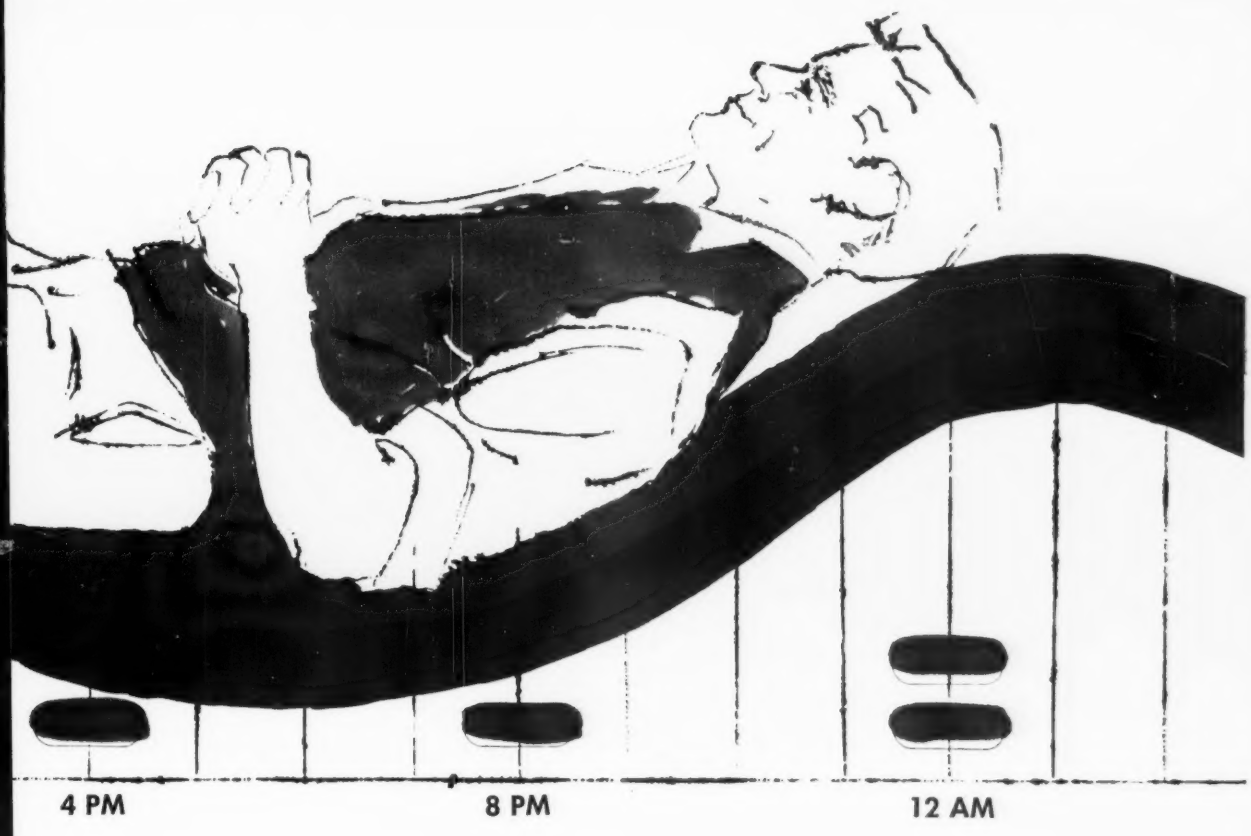

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1956-57. New York, Medical Encyclopedia, Inc., 1957, p. 63. 58. McCloud, I. C.; Shidal, W., and Mulligan, J. L.: Clinical observations on infections treated with a combination of tetracycline and oleandomycin, to be published. 59. McFadden, H. W., and Schelhart, D.: Comparison of the *in vivo* sensitivity of micrococci to oleandomycin, tetracycline and a combination of oleandomycin and tetracycline. Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, pp. 514-519. 60. Manara, G., and Gasparetto, A.: The first clinical experience with water-soluble Signemycin, University of Padua, Minerva chirurgica *13*:535 (May 15) 1958. 61. Medina Morales, F.: The combination of tetracycline-oleandomycin (Signemycin) in the postoperative treatment of three cases of pulmonary resection, Medicina, Mex. *800*:347, 1958. 62. Mehra, B. K.: Combating the resistant staphylococci, Current Med. Pract. *1*:326-328 (May) 1957. 63. 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You and Your Business

GROUND BREAKING—APRIL 1, 1959

Groundbreaking ceremonies for the new MSMS Headquarters will take place on April 1, 1959, at 4:30 p.m. The first shovelful of earth will be turned by MSMS officers as members of The MSMS Council and Woman's Auxiliary observe.

The new building site is located at the northwest corner of M-78 and Abbott Road, East Lansing. Photographs of the groundbreaking ceremony will be published in the May issue of THE JOURNAL.

WHITE HOUSE CONFERENCE

The White House Conference on Children and Youth will be held in Washington, D. C., March 27-April 2, 1960. The State's preparations are being carried out principally through eleven regional White House Conference Committees. The regional study activities will provide the preparation and information for the Regional White House Citizen Workshops to take place in Michigan April and May, 1959. The findings and recommendations of the Regional Citizen Workshops will become the most important part of the Michigan report to the White House Conference in Washington and will be compiled in the autumn of 1959.

Since preparations now are under way in Michigan for the 1960 White House Conference on Children and Youth, it is vital that many interested and knowledgable M.D.'s take part in the varied study projects being carried out by Regional and County White House Conference Committees in their part of the State.

Medicine's voice in this White House Conference is most important—and must be heard.

SIX OPHTHALMOLOGY RESIDENCY FELLOWSHIPS ANNOUNCED

Six additional Fellowships for Residents in Ophthalmology, to be awarded July 1, 1959, have been announced by the Guild of Prescription Opticians of America, Inc., through its president, E. S. Hirsch, Miami, Florida. Applications for these fellowships must be received by May 15, 1959.

Each fellowship is for a total of $1,800, payable in monthly stipends over the period of a three-year residency. The grants are limited to residencies at approved institutions where full three-year residencies are offered, but residencies which begin anytime during the calendar year are eligible. Application forms and covering information are available by writing to Fellowships, Guild of Prescription Opticians of America, Inc., 110 East 23rd Street, New York 10, N. Y.

The six new fellowships being granted represent one for each of the six areas into which the United States and Canada have been divided upon the basis of an equal number of eligible residencies in each area. The selection of the resident fellow is made by a committee of two ophthalmologists in each area.

Awarding six fellowships in 1956, five in 1957 and another six in 1958, the Guild Fellowship Foundation now sends a monthly stipend to seventeen resident eye-physicians. The 1959 awards will replace the six fellowships awarded in 1956, and each year there will be six additional awards to replace the six completing their residencies, a yearly total of eighteen being maintained.

CONGRESS ON OCCUPATIONAL HEALTH

The 13th International Congress on Occupational Health will be held in New York City at the Waldorf-Astoria Hotel, July 25-29, 1960. The Scientific Program Committee invites submission of papers for presentation at the Congress. The program will be devoted to the discussion of the following aspects of occupational health:

1. Administrative Practices
2. Medical Practices
3. Surgical Practices
4. Education and Training
5. Social and Legal Aspects
6. Environmental Hygiene
7. Influence of Environmental Factors in Health
8. Work Physiology and Psychology
9. Specific Industries
10. General

The official languages of the Congress will be English, French, German, and Spanish. However, papers may be read at the Congress in the language desired by the author. For additional information, write the American Medical Association, 535 North Dearborn St., Chicago 10, Illinois.

INTERNATIONAL ACADEMY OF PROCTOLOGY

The eleventh annual convention of the International Academy of Proctology will be at the Plaza, New York, New York, April 5 through 9, 1959. The international, national, and local program committees are planning an unusual seminar on practical techniques for office and hospital. There will be special emphasis on anal and rectal panel

(Continued on Page 310)

INTERNATIONAL ACADEMY OF PROCTOLOGY

(Continued from Page 308)

presentations, and on newer treatment methods, as requested by those who attended the Mexico City meeting in 1958.

All physicians and their wives are cordially invited to attend the annual conventions of the International Academy of Proctology, whether or not they are affiliated with the academy. There is no fee for attendance at these teaching sessions of the Academy.

INTERNATIONAL COLLEGE OF SURGEONS MEETINGS

The twenty-fourth annual Congress of the North American Federation, International College of Surgeons, will be held in Chicago, September 13-17. The federation is composed of the United States, Canadian, Mexican, and Central American Sections.

The 12th biennial International Congress of the International College of Surgeons will be held in Rome, Italy, May 15-18, 1960. For information, write to the Secretariat, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

SURGERY OF TRAUMA

The United States Section, International College of Surgeons, has formed the Section on Surgery of Trauma as a successor to the Section on Occupational Surgery.

Chester C. Guy, M.D., clinical associate professor of surgery at the University of Illinois College of Medicine, Chicago, is chairman of the section and N. Gillmor Long, M.D., Evanston and Chicago, is co-chairman and secretary.

The Section on Surgery of Trauma will provide a forum for those surgeons whose work is limited to traumatic lesions and for those who treat lesions frequently in their daily practice. The section will deal with developments in the treatment of specific injuries, consider programs for the prevention of injuries, conduct studies on basic physiologic and pathologic changes in the injured person, and give thought to allied subjects.

OREGON CANCER CONFERENCE

An Oregon Cancer Conference is being held July 16 and 17, 1959, in Portland under the joint sponsorship of the Oregon State Medical Society, the Oregon Division of the American Cancer Society, the University of Oregon Medical School and the Oregon Academy of General Practice. The Conference is planned for midsummer as a special feature of the Oregon Centennial celebration.

Guest speakers for the two-day Cancer Conference will include Dr. Arthur C. Allen, Professor of Pathology and Dr. Ralph Jones, Jr., Professor of Medicine, both from the faculty of the University of Miami School of Medicine at Coral Gables, Florida; Dr. Gilbert H. Fletcher of Houston, Texas, Radiologist, Tumor Institute of the M. D. Anderson Hospital; Dr. Leslie M. Smith, Dermatologist of El Paso, Texas; Dr. Bayard Carter, Professor of Obstetrics and Gynecology, Duke University School of Medicine; Dr. Gilbert Dalldorf, Albany, New York, Director, Medical and Scientific Research Department of the National Foundation and Dr. J. Englebert Dunphy of Portland, Professor of Surgery, University of Oregon Medical School.

In addition to their individual presentations, each guest speaker will participate in one or more panel discussions.

The program is being developed under the direction of the Committee on Cancer of the Oregon State Medical Society. Dr. Martin A. Howard of Portland is chairman.

All sessions of the Conference will be held in the Library Auditorium at the University of Oregon Medical School except the banquet on the evening of July 16 which will be held at the Hotel Multnomah in Portland. The entire expense of the Conference is being underwritten by the Oregon Division of the American Cancer Society. There will be a charge, however, for the banquet.

A block of rooms has been reserved at the Hotel Multnomah for physicians wishing to attend the Conference. A copy of the complete program and hotel reservation forms may be obtained by writing to Roscoe K. Miller, Executive Secretary, Oregon State Medical Society, 1115 S.W. Taylor Street, Portland 5, Oregon.

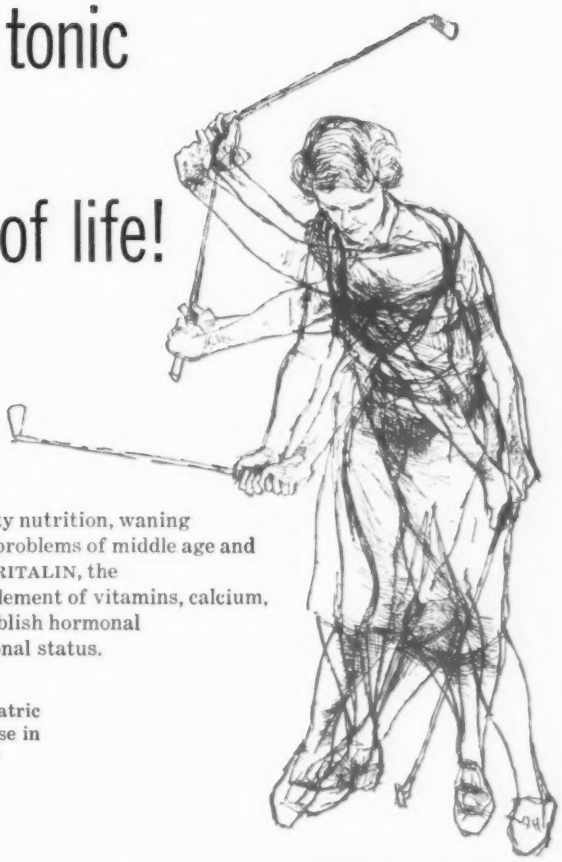
WHITE HOUSE CONFERENCE ON AGING—1961

The January 1961 White House Conference on Aging has as its purpose the arrival at facts and recommendations on the utilization of the skills and experiences and the general improvement of the living conditions of older people.

State conferences will be held in advance of the Washington, D. C., Conference of 1961. The MSMS Geriatrics Committee, at its March 4 meeting, laid down a plan to develop a review of the accomplishments of the Michigan State Medical Society in the field of gerontology, for submission to the Michigan State Conference, which may be initiated by the State Department of Health. Adequate medical representation on the Michigan State Conference Committee will be requested.

Any MSMS member interested in any facet of the January 1961 White House Conference on Aging is invited to send his thoughts and recommendations to A. Hazen Price, M.D., Chairman of the MSMS Geriatrics Committee, Box 539, Lansing 3.

New revitalizing tonic brightens the second half of life!



Ritonic™

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the *safe* central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement . . ."[1] "Patients reported an increase in alertness, vitality and sense of well being."[2]

PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

Ritalin® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B_1)	5 mg.
riboflavin (vitamin B_2)	1 mg.
pyridoxin (vitamin B_6)	2 mg.
vitamin B_{12} activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.

Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.
Supplied: Ritonic CAPSULES; bottles of 100.
References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. *6*:534 (July) 1958.
2. Bachrach, S.: To be published.
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

CIBA SUMMIT, N. J.

2/2055MK

Governor's Hospital Cost Survey

The University of Michigan in January began extensive interviews with experts throughout the state to obtain factual information on hospital and medical economics in Michigan.

According to Prof. Walter J. McNerney, director of the study, data will be obtained from several hundred hospitals and allied institutions, prepayment and insurance companies, and professional workers.

Designed to provide all interested groups in the state with facts necessary to review key policies now under active discussion, the study is being conducted at the request of the Governor's Commission on Pre-Paid Hospital Care Plans. It is supported by a grant of $324,760 from the Kellogg Foundation.

The study is the first, most comprehensive, and most liberally financed of several studies in medical and hospital economics now being conducted in several states across the country. The Michigan study is divided into eight major areas, each under the direction of a research associate. These include:

1. *Physician.*—An inventory of professional personnel, an examination of how effectively hospitals are being utilized, and a study of the impact of changes in medical science on medical costs.

2. *Household Survey.*—A household survey of a cross section of Michigan residents with special attention to the aged and those with major medical expense to measure health expenditures, sources of payment, attitudes toward medical economic problems, perceived unmet needs and difficulties involved getting and keeping pre-paid or insurance coverage for medical and hospital expenses.

3. *Hospital Accounting and Reimbursement.*—A study of the relationship between frequency of use of hospital services and source of payment, an evaluation of accounting systems including selected cost analysis methods in hospitals, analysis of reimbursement formulas (including Blue Cross), and an assessment of selected problems such as capital costs, research, and education.

4. *Programs and Costs of Hospitals and Allied Institutions.*—An inventory of hospitals and allied institutions with an estimate of the insurability of their services, and analysis of cost trends and related factors, and an evaluation of working relations between these institutions.

5. *Prepayment and Insurance Agencies.*—An inventory of currently available hospital and medical prepayment and insurance programs in Michigan, including evaluation of gaps in population coverage and scope of benefits, analysis of operations of insurance and prepayment organizations, examination of experience versus community rating, measurement of the impact of benefit structure on use, analysis of coverage during layoffs and unemployment, and cost estimates for extending breadth and depth of coverage.

6. *Control.*—Examination of controls exerted by various agencies affecting the quantity, quality and costs of health services.

7. *Discharge Study.*—Analysis of the institutionalized population of Michigan during the past year to isolate major factors conditioning patterns of use.

8. *Government.*—Description and analysis of the roles of various government agencies paying for or directly providing health care in the State.

"At the moment, the State lacks a factual basis upon which to base future action in the area of hospital and medical economics," McNerney declares. "This study should provide highly useful information to persons and agencies facing key policy decisions in this area."

Interim reports from the U-M study will be made directly to the public, starting this spring. A final, overall report is expected to be ready by the spring of 1960.

"During the planning and early stages of this study, co-operation from health agencies and personnel in Michigan has been excellent," McNerney declares. "Groups such as Blue Cross-Blue Shield, insurance companies, hospitals, labor, management and the government have also been highly supportive.

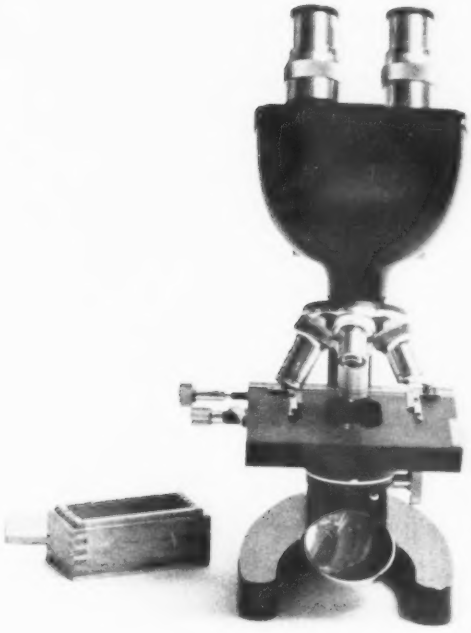
"Given further assistance of the same caliber, health agencies in Michigan may soon be in the desirable position of being able to take a comprehensive look at their problems and being able to plot an intelligent course for the future."

In asking the University of Michigan to conduct the study, the Governor's Commission gave the University "full responsibility for its design and implementation," McNerney notes. The Commission also approved an arrangement whereby financial support went directly to the U-M and reports were made directly from the U-M to the public.

"In this manner, the Commission gave concrete evidence of its desire to get at the facts objectively, while reserving the privilege of interpreting the U-M report in a separate statement," he continues. "The commission and the University, working together, obtained the official approval of organized hospitals, physicians and insurance and prepayment organizations before planning the project in detail."

The study is staffed by a director, eight research associates, and several research assistants representing the skills of hospital administration, medicine, public health, economics, accounting, actuarial science, and medical sociology.

for the control of all coccal infections



ABBOTT'S ANTIBIOTIC TRIAD

against staph-, strep- and pneumococci

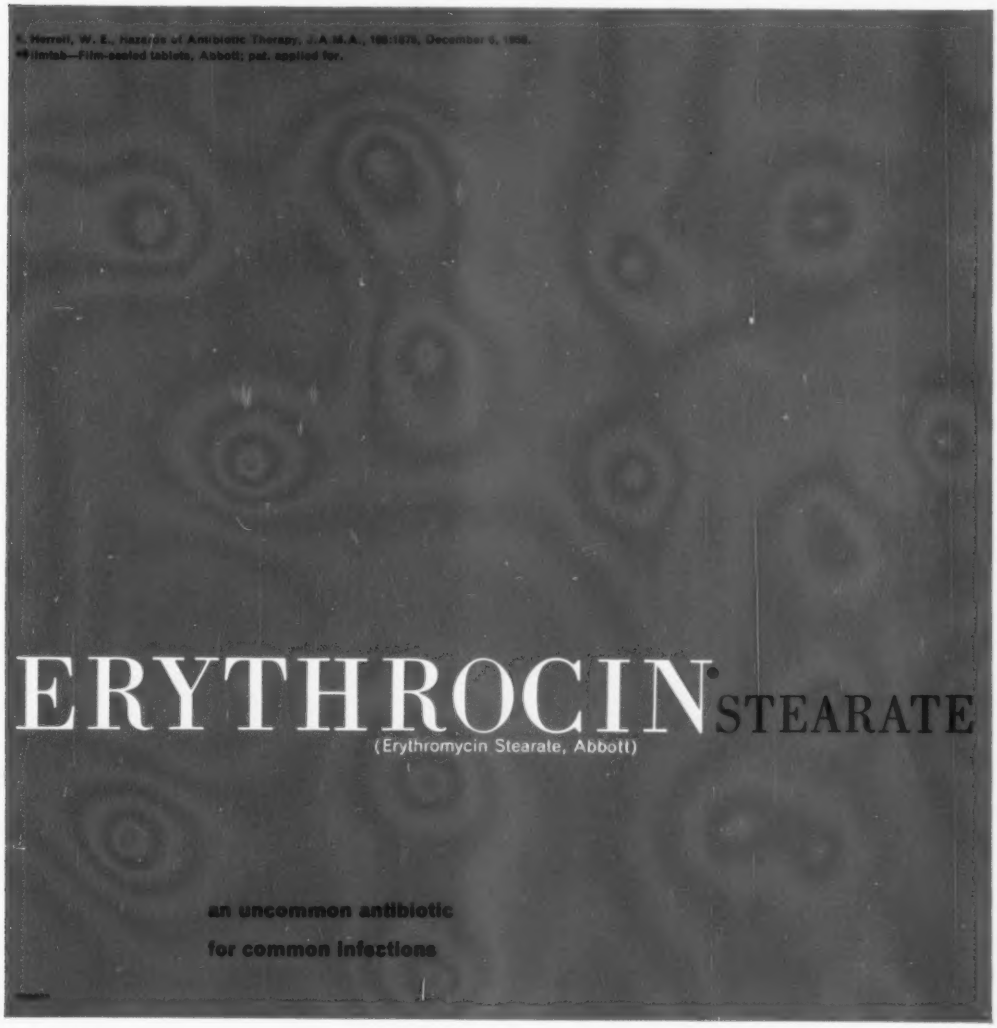
After Millions of Prescriptions
An Unparalleled Safety Record

Provides fast, high blood and tissue concentrations—Because ERYTHROCIN Stearate is rapidly absorbed, patients get therapeutic blood and tissue levels within 30 minutes—and effective concentrations for at least six hours.

Supported by an unparalleled safety record—During all the years ERYTHROCIN has been prescribed, serious reactions have been practically nonexistent. Unlike penicillin, allergy is no problem. And, in contrast to "broad spectrum" action, the normal intestinal flora is virtually unaltered with ERYTHROCIN therapy. And only recently, a well-known investigator said, "Erythromycin is by far the least toxic of the commonly used antibiotics.[1]"

Offers bactericidal action—Unlike broad-spectrum antibiotics, ERYTHROCIN is classed as a bactericidal agent. It offers lethal action against common coccic invaders—resulting in prompt clinical responses.

Provides convenient dosage forms—Usual adult dose is 250 mg. four times daily. Children's dosage is reduced in proportion to body weight. ERYTHROCIN comes in Filmtabs® (100 and 250 mg.), bottles of 25 and 100. Also, in oral suspension and for intramuscular and intravenous use. Abbott

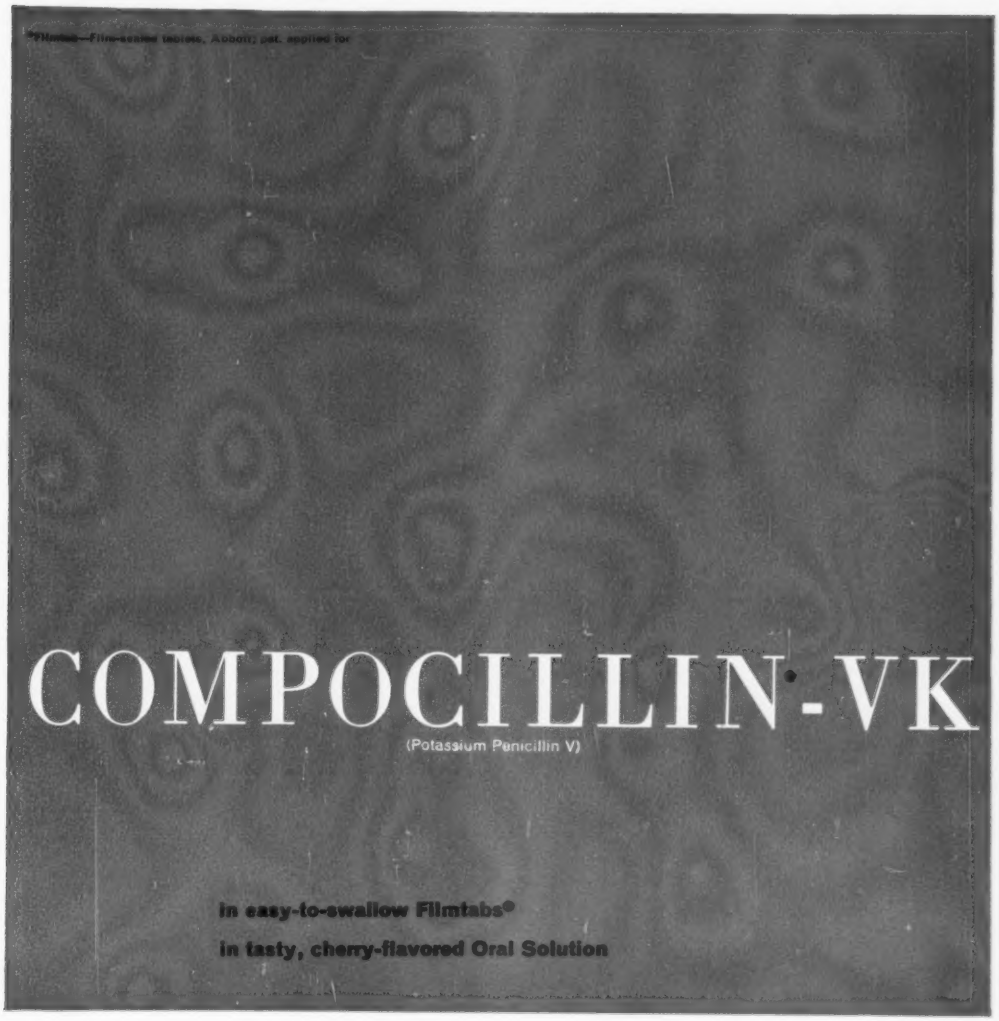


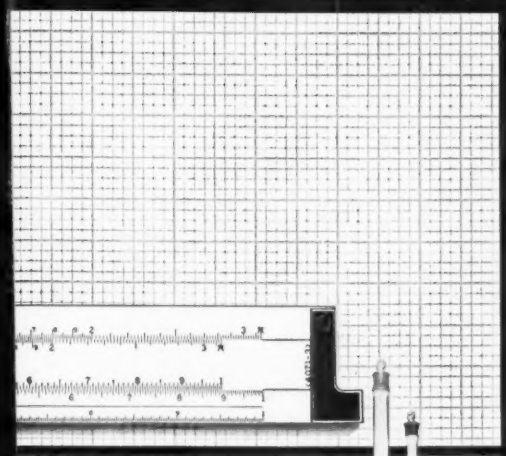
COMPOCILLIN-VK Indications—Against all organisms sensitive to oral penicillin therapy. For prophylaxis and treatment of complications in viral conditions. As a prophylaxis in rheumatic fever and in rheumatic heart disease.

COMPOCILLIN-VK Dosage—Depending on the severity of the infection, the usual adult dose is 125 mg. to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage may be reduced in proportion to body weight.

COMPOCILLIN-VK Supplied—In Filmtabs, 125 mg. (200,000 units), bottles of 50 and 100; 250 mg. (400,000 units), bottles of 25 and 100. For oral solution, COMPOCILLIN-VK comes in 40-cc. and 80-cc. bottles. When reconstituted with water, each appealing (it's a clear red solution) 5-cc. teaspoonful represents 125 mg. (200,000 units) of potassium penicillin V.

Abbott

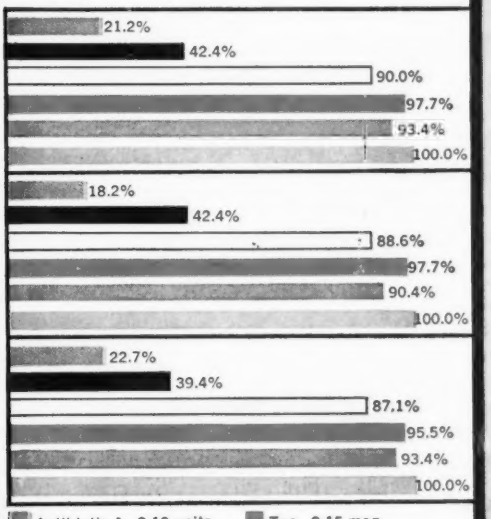




in the laboratory:

over 90% effective against resistant staph

COMPARATIVE TESTS BY THREE METHODS (DISC, TUBE DILUTION, CYLINDER PLATE) ON 130 STAPHYLOCOCCI[9]



Percentage of organisms inhibited by the range of concentrations listed for each antibiotic.

Other Tao advantages:

Rapidly absorbed—stable in gastric acid,[7] TAO needs no retarding protective coating

Low in toxicity—freedom from side effects in 96% of patients treated; cessation of therapy is rarely required

Highly palatable—"practically tasteless"[7] active ingredient in a pleasant cherry-flavored medium.

Dosage and Administration: Dosage varies according to the severity of the infection. **For adults,** the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. **For children** 8 months to 8 years, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg., bottles of 60. TAO for Oral Suspension—1.5 Gm., 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. Koch, R., and Asay, L. D.: J. Pediat., in press. 2. Leming, B. H., Jr., et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 3. Mellman, et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 4. Olansky, S., and McCormick, G. E., Jr.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 5. Shubin, H., et al.: Antibiotics Annual 1957-1958, New York, N. Y., Medical Encyclopedia, Inc., 1958, p. 679. 6. Isenberg, H., and Karelitz, S.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 7. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy 5:527 (Aug.) 1958. 8. Kaplan, M. A., and Goldin, M.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 9. Truant, J. P.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958.

Tao dosage forms— for specific clinical situations

Tao Pediatric Drops

For children—flavorful, easy to administer.

Supplied: When reconstituted, 100 mg. per cc. Special calibrated droppers—5 drops (approx. 25 mg.) and 10 drops (approx. 50 mg.). 10 cc. bottle.

Tao-AC (Tao analgesic, antihistaminic compound)

To eradicate pain and physical discomfort in respiratory disorders.

Supplied: In bottles of 36 capsules.

Taomid* (Tao with triple sulfas)

For dual control of Gram-positive and Gram-negative infections.

Supplied: Tablets, bottles of 60. Oral Suspension, bottles of 60 cc.

Intramuscular or Intravenous

For direct action—in clinical emergencies.

Supplied: In 10 cc. vials.

*TRADEMARK

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

". . . the conversion privilege in this group policy is extremely broad."

MSMS Members Like Group Life Insurance Plan

First Report

Despite mangled airline schedules due to stormy weather, Charles G. Heitzberg *(left)* of Newark, New Jersey, arrived in Detroit only a few hours late for an appointment with MSMS President G. B. Saltonstall, M.D., and President-Elect M. A. Darling, M.D., on January 29. Mr. Heitzberg came to Detroit to discuss initial reports of membership response to the new MSMS Group Life Insurance offering. He is Vice President in Charge of Agencies, Mutual Benefit Life Insurance Company.

The preliminary enrollment report was presented by Mr. Ben P. Stratton, Lansing, whose agency will install and service the new plan for MSMS. Mr. Stratton said that more than 500 applications had been returned to January 26 from members receiving informational material from MSMS.

Doctor Darling, chairman of the MSMS study committee which developed the program, said that the conversion privilege in this group policy is extremely broad. The clause provides for immediate conversion, even though the policy-holder is non-insurable under ordinary circumstances. Most plans permit conversion only after the individual leaves the group.

Mr. Heitzberg emphasized that the $10,000 policy would provide liquid funds for the settlement of estate taxes, and for this reason alone would be a valuable addition to the professional man's insurance portfolio. In addition, he said the excellent disability feature provides a waiver of premium for an unlimited period. Another unique feature of the policy is the broad settlement options which are the same as those in an individual contract.

Doctor Saltonstall pointed out that the Mutual Benefit Life Insurance Company, through its Michigan agencies, had long worked with the medical profession; its local representatives have acquired a fine understanding of the financial planning and estate problems of physicians.

It was reported that an additional 300 applications were expected within a thirty-day period and that the plan would take effect no later than March 1, following approval by the State Insurance Commissioner.

newest steroid

CLINICALLY PREPROVED

maximum
steroid effectiveness in more patients

highest
anti-inflammatory activity per milligram

lowest
dosage of currently used steroids

unexcelled
freedom from significant diabetogenic effects

widest
range of steroid usefulness

Schering

today's steroid...DERONIL

dexamethasone

in rheumatoid arthritis—"highly effective...in remarkably small daily milligram doses."[1]

The initial anti-inflammatory effect of DERONIL, the most active anti-rheumatic steroid on a weight basis synthesized to date,[1-4] is observed in most patients within 24 to 48 hours. Joint pain is relieved, swelling and stiffness diminish, and range of motion increases. The patient usually feels a sense of well-being and the appetite improves. The intensified anti-inflammatory activity helps assure successful initial therapy in rheumatoid arthritic cases and frequently restores relief to patients who have shown a diminution in response to previous steroids.

TYPICAL RESULTS WITH DEXAMETHASONE THERAPY IN ARTHRITIS

Investigator or Study	No. of patients	Improvement		
		Very marked or marked	Moderate	Slight or inadequate
Boland, E. W., and Headley, N. E.[1]	11	4	5	2
Bunim, J. J., and others[3]	18	5	7	6
Series A[5]	15	4	9	2
Series B[5]	6	6	—	—
Series C[5]	3	3	—	—

DERONIL IN BRONCHIAL ASTHMA AND SEVERE RESPIRATORY ALLERGIES

Investigator or Study	No. of patients	Results		
		Excellent	Fair to good	Poor
Series D[5]	24	10	9	5
Series E[5]	12	8	3	1
Series F[5]	20	13	4	3

clinically preproved in steroid-responsive diseases

IMPROVEMENT WITH DERONIL IN A WIDE VARIETY OF ALLERGIC AND INFLAMMATORY SKIN DISEASES[5]

Disease	No. of patients	Improved	Same	Worse
Seborrheic psoriasis	1	1		
Neurodermatitis	5	5		
Allergic dermatitis	5	5		
Psoriasis	5	2	1	2
Lupus erythematosus, chronic discoid	1		1	
Atopic dermatitis	3	3		
Acne rosacea	1		1	
Nummular eczema	2	2		
"id" reactions	2	2		
Contact dermatitis	2	2		
Pityriasis rosea, severe	1	1		
Urticaria, chronic	1	1		
Totals	29	24	3	2

THERAPY WITH DERONIL IN A VARIETY OF INFLAMMATORY EYE DISEASES[5]

Patient, age and sex	Diagnosis	Symptoms	Results with DERONIL	Side effects
A.B., 46, M.	Postoperative uveitis		Improved; treatment being continued	None reported*
A.E., 53, M.	Choroiditis	Severe choroidal involvement	Excellent; marked improvement	None*
B.F., 60, F.	Acute choroiditis	Marked visual loss and choroidal effect	Marked improvement; therapy being continued	None*
B.K., 29, F.	Chronic uveitis	Generalized involvement	No change despite dosage increase	None*
H.K., 28, M.	Acute iritis	Blurred vision	Excellent; recovered	None*
A.P., 52, M.	Uveitis and perivasculitis	Vision loss to 20/80	Marked improvement; vision 20/30; treatment continued	None*
A.S., 34, M.	Uveitis		Excellent; patient recovered	None*

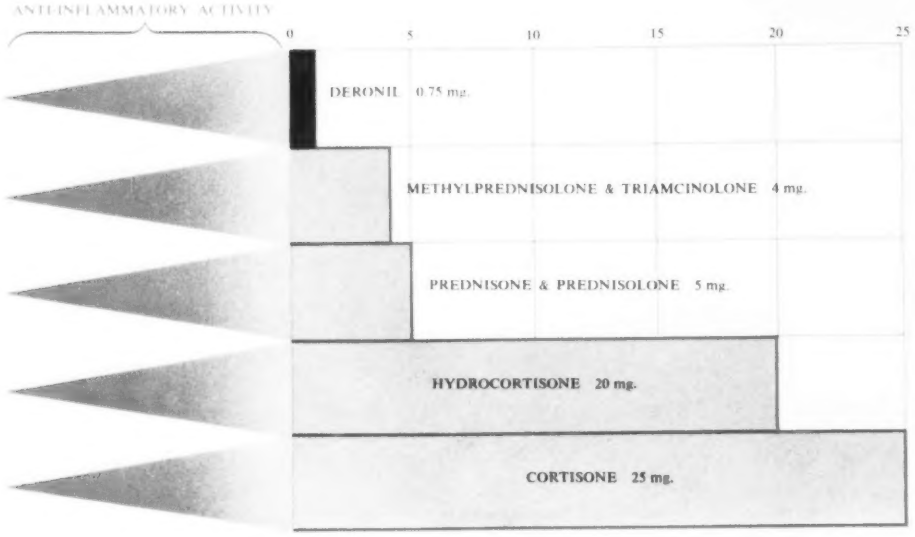
*Short-term therapy

guide to the clinical use of new DERONIL

dexamethasone

DERONIL, new 9-alpha-fluoro-16-alpha-methyl derivative of prednisolone, has at least six times the anti-inflammatory activity, milligram for milligram, of other steroids in current use. Effective dosages are the lowest in steroid therapy. And the price of DERONIL to the patient is no higher than those prevailing for other steroids.

STEROID DOSAGE EQUIVALENTS OF DERONIL



Comparative dosages of corticosteroids for equivalent anti-inflammatory activity

Dosages pre-established in the vast majority of steroid-responsive diseases

The comprehensive clinical studies conducted with DERONIL before introduction mean that initial and maintenance dosages are already established for the physician in practically all steroid-responsive diseases including rheumatoid arthritis, acute rheumatic fever, bursitis, bronchial asthma, pulmonary emphysema and fibrosis, intractable hay fever (pollenosis), disseminated lupus erythematosus, allergic and inflammatory dermatoses and eye diseases and the adrenogenital syndrome. For complete information on dosage, precautions and contraindications, consult Schering literature.

Packaging

DERONIL Tablets, 0.75 mg., scored, bottles of 50 and 500.

Bibliography

(1) Boland, E. W., and Headley, N. E.: Preliminary clinical observations with a new series of synthetic corticosteroid compounds in patients with rheumatoid arthritis, Paper presented at Annual Meet., Am. Rheumat. Assn., San Francisco, June 21, 1958. (2) Boland, E. W.: California Med. *88*:417, 1958. (3) Bunim, J. J., and others: Arthritis and Rheumatism *1*:313, 1958. (4) Spies, T. D.; Stone, R. E., and Niedermeier, W.: South. M. J. *51*:1066, 1958. (5) Reports to Clinical Research Division, Schering Corporation.

DERONIL – T.M. – brand of dexamethasone.

SCHERING CORPORATION · BLOOMFIELD, NEW JERSEY Schering

DN-1 1029

for depression

▲Deprol▲†

Clinically confirmed in over 2,500 documented case histories[1,2]

CONFIRMED EFFICACY

Deprol ► acts promptly to control depression *without* stimulation
► restores natural sleep
► reduces depressive rumination and crying

DOCUMENTED SAFETY

Deprol is unlike amine-oxidase inhibitors

► does not adversely affect blood pressure or sexual function
► causes no excessive elation
► produces no liver toxicity
► does not interfere with other drug therapies

Deprol is unlike central nervous stimulants

► does not cause insomnia
► produces no amphetamine-like jitteriness
► does not depress appetite
► has no depression-producing aftereffects
► can be used freely in hypertension and in unstable personalities

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each tablet contains 400 mg. meprobamate and 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl).

Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

†Trade-mark

CD-7469

Literature and samples on request WALLACE LABORATORIES, *New Brunswick, N. J.*

Medicolegal Forms

This month's Medicolegal Form has been selected, as usual, by MSMS Legal Counsel from "Medicolegal Forms with Legal Analysis" prepared and published by the Law Department of the American Medical Association.

Although occasion for the use of this month's form does not arise too frequently, it is a most important one to have in mind when its relatively rare use is indicated.

CONSENT TO REMOVAL OF TISSUE FOR GRAFTING

1. I hereby request and authorize Dr._____, and such assistants as he may designate, to perform an operation upon myself for the purpose of removing the following tissues_____ from
(Insert: skin, bone, cartilage, etc.)
my person for donation to_____. The
(Name of recipient or myself)
operation is to include such procedures as may be necessary in the judgment of the operating surgeon for the purpose of attempting to graft tissues, and the use of such anesthetics as he may deem advisable.

2. I make this request with full knowledge that this attempt to graft tissue may not be successful. The risks and uncertainties involved as well as the possibility that I may be permanently injured, scarred, or disfigured as a consequence of this operation, have been fully explained to me. Nevertheless, I make this request and grant the authority set forth above, voluntarily and upon my own initiative, and with no assurances from anyone as to the results that may be obtained, either in respect to myself or the recipient.

Date_____ Signature of Donor_____

The above consent to removal of tissue for grafting was read and signed by the donor in my presence, and in my opinion with complete understanding of its meaning.

Witness_____

Allergy-free...all day... with this much medication

Typically, the allergic patient can enjoy a whole day's freedom from symptoms with just one Pyribenzamine Lontab in the morning—a whole night of restful sleep with just one Lontab in the evening.

The outer shell of the unique Lontab actually contains an effective dose of Pyribenzamine which is released minutes after the Lontab enters the stomach. Thereafter, medication is released uniformly and continuously from the specially formulated inner core of the Lontab—sustaining antiallergic effect as long as 12 hours.

For patients who need only periodic medication, regular Pyribenzamine tablets provide fast, dependable action, with a minimum of undesirable side effects.

SUPPLIED: Pyribenzamine Lontabs—full-strength—100 mg. (light blue). **Pyribenzamine Lontabs**—half-strength—50 mg. (light green); for children over 5 and adults who require less antiallergic medication. **Pyribenzamine** Regular Tablets, 50 mg. (green, scored) and 25 mg. (green, sugar-coated).

Pyribenzamine® hydrochloride *(tripelennamine hydrochloride* CIBA) **Lontabs®** *(long-acting tablets* CIBA)

5/2021MM

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Pyribenzamine® Lontabs®

JUST ONE KEEPS YOUR ALLERGIC PATIENT ON A 12-HOUR THERAPEUTIC PLATEAU

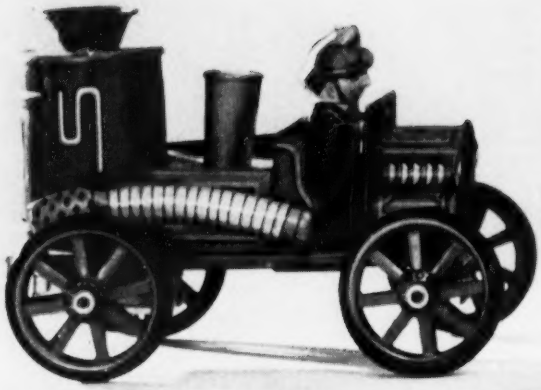
inflammatory-suppressive

inflammatory-corrective

antiallergic

antirheumatic

new, exclusive



Prednis-CVP®

dual anti-inflammatory

inflammatory-suppressive . . .
potent, prompt, sustained action with prednisolone

inflammatory-corrective . . .
reduction of abnormal capillary permeability with citrus bioflavonoids

"built-in" protection

with citrus bioflavonoids . . .
against ecchymoses, purpuras, gastric hemorrhage and other steroid-induced capillary damage

with antacids . . .
against gastric distress, digestive upsets, nausea

in rheumatoid arthritis bronchial asthma eczemas

and other inflammatory, allergic and rheumatic conditions

suggested dosage:

Average initial dose, 2 to 5 capsules daily, in divided doses; in severe cases, 6 to 10 capsules daily. Gradually reduce dosage to effective maintenance level.

Bottles of 30, 100 and 500 capsules.

Each **PREDNIS-C.V.P.** capsule provides:	
PREDNISOLONE	4 mg.
CITRUS BIOFLAVONOID COMPOUND	100 mg.
ASCORBIC ACID (C)	100 mg.
ALUMINUM HYDROXIDE	100 mg.
MAGNESIUM OXIDE	100 mg.

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WHATEVER THE ETIOLOGY—

EDEMA OF ANY DEGREE RESPONDS TO DIURIL®

CHLOROTHIAZIDE

An unparalleled record of safety and efficacy.

DIURIL has proved to be highly effective in overcoming edema associated with a wide variety of fluid retention states including: hypothyroidism, menopausal syndrome, allergy, peripheral phlebitis, arthritis, migraine headache, ascites or peripheral edema due to malignant tumor, and obesity. In the last case, Landes and Peters[1] achieved excellent to good results in nine obese patients in whom overweight was associated with moderate or severe fluid retention.

1. Landes, R. P. and Peters, M.: Postgrad. Med. 23:648, June 1958.

dosage: one or two 500 mg. tablets of DIURIL once or twice a day.

supplied: 250 mg. and 500 mg. scored tablets DIURIL (Chlorothiazide); bottles of 100 and 1000.

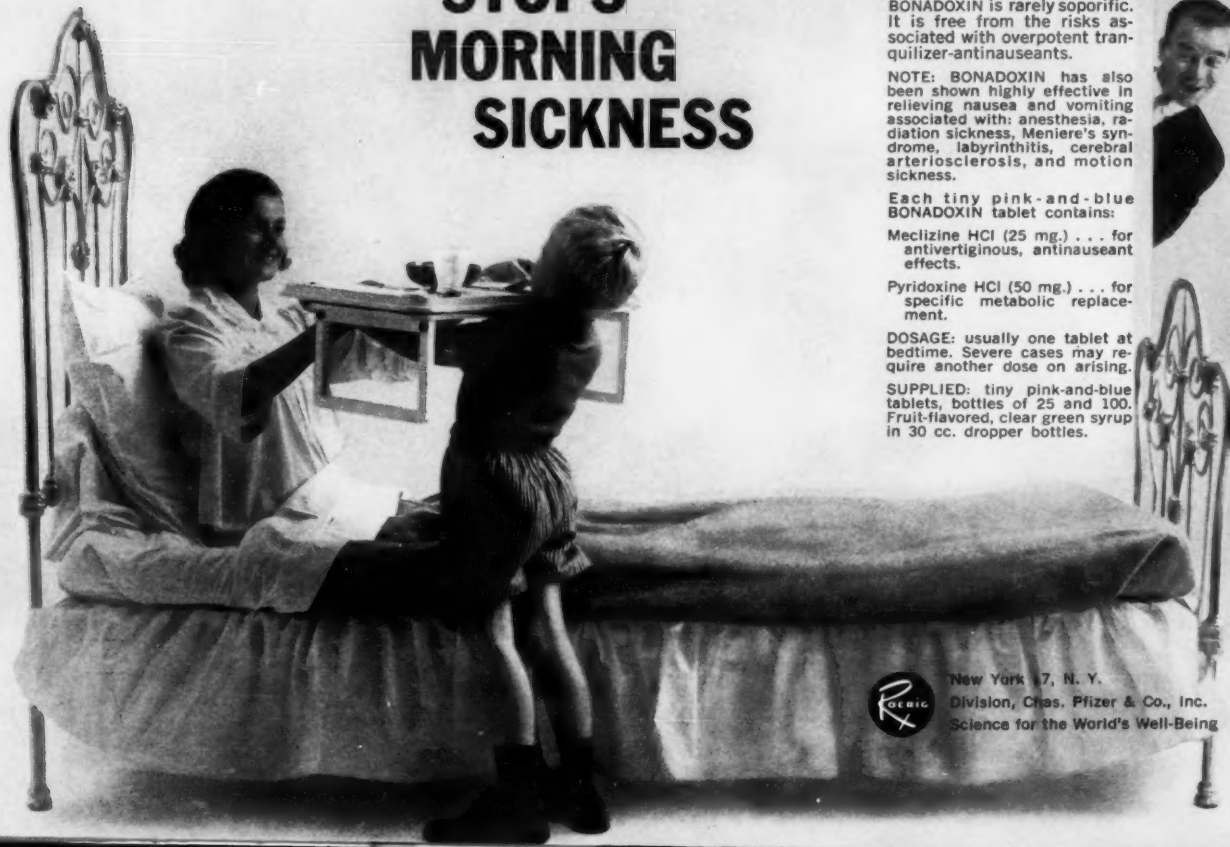
any indication for diuresis is an indication for DIURIL

MSD MERCK SHARP & DOHME
Division of Merck & Co., Inc. • Philadelphia 1, Pa.

BONADOXIN®

(tablets and drops)

STOPS STOPS STOPS MORNING SICKNESS



BONADOXIN Tablets relieve nausea and vomiting of pregnancy in 9 out of 10,[1-7] often within a few hours.

Moreover, a controlled study of 620 cases reported that with BONADOXIN "toxicity and intolerance [are] zero."[1] BONADOXIN is rarely soporific. It is free from the risks associated with overpotent tranquilizer-antinauseants.

NOTE: BONADOXIN has also been shown highly effective in relieving nausea and vomiting associated with: anesthesia, radiation sickness, Meniere's syndrome, labyrinthitis, cerebral arteriosclerosis, and motion sickness.

Each tiny pink-and-blue BONADOXIN tablet contains:

Meclizine HCl (25 mg.) . . . for antivertiginous, antinauseant effects.

Pyridoxine HCl (50 mg.) . . . for specific metabolic replacement.

DOSAGE: usually one tablet at bedtime. Severe cases may require another dose on arising.

SUPPLIED: tiny pink-and-blue tablets, bottles of 25 and 100. Fruit-flavored, clear green syrup in 30 cc. dropper bottles.

Infant colic? BONADOXIN DROPS are antispasmodic...stop colic in 84%,[8-10] without the risk of belladonna and barbiturates.

Each cc. contains:
Meclizine dihydrochloride . . 8.33 mg.
Pyridoxine hydrochloride . . . 16.67 mg.

Dosage:

under 6 months	0.5 cc.	2 or 3 times daily, on the tongue, in fruit juice or water
6 months to 2 years	1.5 to 2 cc.	
2 to 6 years . .	3 cc.	
adults and children over 6	1 tsp. (5 cc.)	

References: 1. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957. 2. Groskloss, H. H., et al.: Clin. Med. 2:885 (Sept.) 1955. 3. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. 6:580 (April) 1955. 4. Crawley, C. R.: West. J. Surg. 8:463 (Aug.) 1956. 5. Tartikoff, G.: Clin. Med. 3:223 (March) 1955. 6. Dunn, R. D., and Fox, L. P.: Clinical exhibit. 7. Codling, J. W., and Lowden, R. J.: Northwest Med. 57:331 (March) 1958. 8. Dougan, H. T.: Personal communication. 9. Leonard, C. L.: Personal communication. 10. Steinberg, C. L.: Personal communication.

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Science for the World's Well-Being

PR REPORT

COUNTY SECRETARIES—PR SEMINAR

Opening this year's Seminar in Detroit on January 31, Alma College President Robert D. Swanson sounded the keynote with an earnest appeal to all professional men.

By pointing to their "high degree of learning and their capacity for leadership," Dr. Swanson urged doctors, educators and all other learned men to "fully exert that leadership for the good of this nation's social and political future." (See page 342 for complete text of speech.)

Heading the two-day meeting were R. Wallace Teed, M.D., Ann Arbor, Chairman of the MSMS Public Relations Committee, and James E. Mahan, M.D., Allegan, Chairman of the County Society Secretaries. Ray M. Duffy, M.D., of Pinckney, was elected as Dr. Mahan's successor for the coming year.

Three panel groups, chaired by Hugh M. Fuller, M.D., Detroit; Lawrence A. Drolett, M.D., Lansing, and Dr. Teed, discussed the latest developments and techniques in public relations and association work with the more than two hundred state and county officers and P.R. representatives in attendance.

Representatives of the three branches of state government, Senator Edward Hutchinson, State Controller James W. Miller and Washtenaw Circuit Judge James R. Breakey, Jr., discussed medicine's participation in the legislative, executive and judicial processes. Also featured on the program were MSMS Legal Counsel Lester P. Dodd, Detroit; President G. B. Saltonstall, M.D., Charlevoix; Councilors Wm. M. LeFevre, M.D., Muskegon, and A. E. Schiller, M.D., Detroit; A. Hazen Price, M.D., and Gaylord S. Bates, M.D., both of Detroit; and MSMS Public Relations Counsel Hugh W. Brenneman, Lansing.

Communications Luncheon

Sunday noon, following adjournment of the Seminar, Michigan Medical Service hosted a special luncheon for the registrants, at which time a progress report on the new Blue Shield contract was made by top MMS and MSMS officials and committee chairmen.

Record Number Registered

Among the 226 present were:

County Secretaries—H. E. Schneiter, M.D., (Allegan); Harold Kessler, M.D., (Alpena-Alcona-Presque Isle); Everette L. Phelps, M.D., (Barry); Howard T. Knobloch, M.D., (Bay-Arenac-Iosco); J. C. Heffelfinger, M.D., (Branch); S. A. Yannitelli, M.D., (Calhoun); B. C. Cook, M.D., (Clinton); R. D. Cecconi, M.D., (Dickinson-Iron); John B. Rowe, M.D., (Genesee); P. H. Ringer, M.D., (Gratiot-Isabella-Clare); F. M. Wessels, M.D., (Hillsdale); C. F. Wible, M.D., (Huron); Wm. D. Cheney, M.D., (Ingham); C. E. Stevens, M.D., (Ionia-Montcalm); H. W. Porter, M.D., (Jackson); R. D. Warnke, M.D., (Kalamazoo); James R. Doty, M.D., (Lapeer); R. T. Hammel, M.D., (Lenawee); R. M. Duffy, M.D., (Livingston); Peter V. Kane, M.D., (Macomb); Louis Rosenbaum, M.D., (Marquette-Alger); James E. Walters, M.D., (Mecosta-Osceola-Lake); R. A. Frary, M.D., (Monroe); H. C. Tellman, M.D., (Muskegon); R. W. Emerick, M.D., (Newaygo); P. A. Dosch, M.D., (North Central Counties); Thomas R. Kirk, M.D., (Northern Michigan); J. A. Read, M.D., (Oakland); P. J. DeVries, M.D., (Ottawa); Glenn E. Mohney, M.D., (St. Clair); C. G. Porter, M.D., (St. Joseph); A. E. Parks, M.D., (Van Buren); G. H. Bauer, M.D., (Washtenaw); Hugh M. Fuller, M.D., (Wayne); B. F. Koepke, M.D., (Wexford-Missaukee).

County Presidents—A. P. Brachman, M.D., (Allegan); T. W. Myers, M.D., (Barry); G. L. Hagelshaw, M.D., (Bay-Arenac-Iosco); H. C. Mitchell, M.D., (Branch); D. L. Finch, M.D., (Calhoun); J. G. Haarer, M.D., (Ionia-Montcalm); Jason B. Meads, M.D., (Jackson); J. G. Malone, M.D., (Kalamazoo); James W. Logie, M.D., (Kent); R. Fred Hauer, M.D., (Livingston); D. L. Rousseau, M.D., (Macomb); Ruth E. Lalime, M.D., (Manistee); J. L. Tyson, M.D., (Mecosta-Osceola-Lake); N. A. Fleishmann, M.D., (Muskegon); R. R. Wessels, M.D., (Oakland); N. F. Bach, M.D., (Shiawasee); C. I. Owen, M.D., (Wayne).

County Presidents-Elect.—E. D. Hamilton, M.D., (Branch); G. E. Anthony, M.D., (Genesee) Bruce C. Olsen, M.D., (Ionia-Montcalm); L. E. Sargent, M.D., (Jackson); J. R. Lentini, M.D., (Kent) C. L. Cook, M.D., (Lenawee); M. S. Reizen, M.D., (Macomb); L. L. Loder, M.D., (Muskegon); W. J. Zimmerman, M.D., (Oakland); J. D. Cantwell, Jr., M.D., (St. Clair); F. J. Loomis, M.D., (Van Buren); Milton R. Weed, M.D., (Wayne).

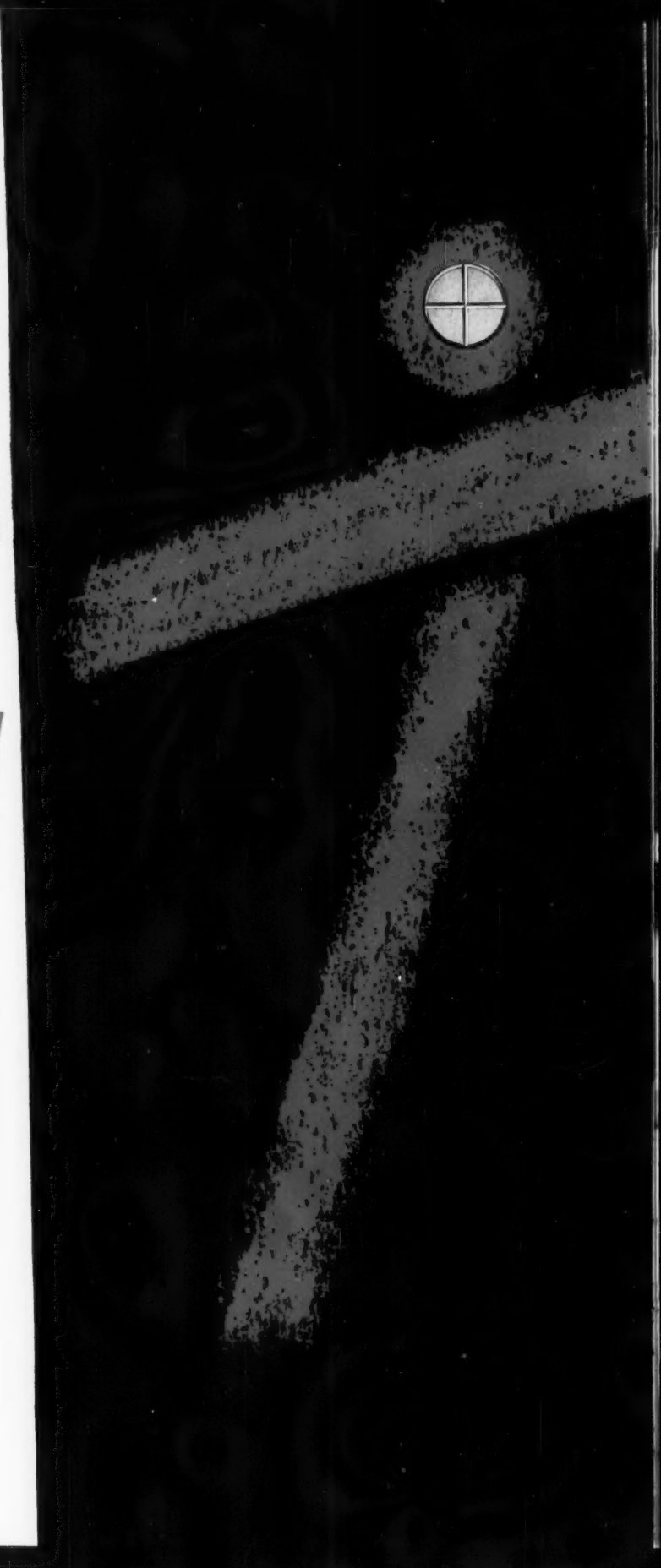
County Bulletin Editors.—P. K. Stevens, M.D., (Genesee); David I. Sugar, M.D., (Wayne).

Public Relations Chairmen.—J. W. Bunting, M.D., (Alpena-Alcona-Presque Isle); Robert E. Reagan, M.D., (Berrien); R. S. Simpson, M.D., (Calhoun); F. W. Smith, M.D., (Clinton); C. L. Hoogerland, M.D., (Gratiot-Isabella-Clare); O. J. Preston, M.D., (Genesee); David Kahn, M.D., (Ingham); L. L. Olsen, M.D., (Jackson); E. L. Stone, M.D., Co-Chairmen, (Jackson); D. P. Moore, M.D., (Kent); T. A. Barton, M.D., (Livingston); Victor Curatolo, M.D., (Macomb); Paul Ivkovich, M.D., (Mecosta-Osceola-Lake); R. C. Olsen, M.D., (Menominee); L. L. Loder, M.D., (Muskegon); L. E. Grate, M.D., (Northern Michigan); Everette Gustafson, M.D., (Oakland); J. H. Kitchel, M.D., (Ottawa); J. E. Manning, M.D., (Saginaw); Sidney E. Chapin, M.D., (Wayne).

MSMS Council.—O. J. Johnson, M.D., (Bay); H. J. Meier, M.D., (Branch); Editor Wilfrid Haughey, M.D., (Calhoun); G. W. Slagle, M.D., (Calhoun); D. G. Pike, M.D., (Grand Traverse); E. S. Oldham, M.D., (Gratiot-Isabella-Clare); T. P. Wickliffe, M.D., (Houghton-Keweenaw-Baraga); K. H. Johnson, M.D., (Ingham); Ralph W. Shook, M.D., (Kalamazoo); C. Allen

(Continued on Page 338)

JUST ONE TABLET DAILY



provides therapeutic sulfa levels for 24 hours...
Highly soluble in acid and alkaline media... rapidly absorbed, producing fast, effective plasma-tissue concentrations sustained for the entire day. Simple, single 0.5 Gm. daily dose minimizes patient dosage confusion. At least equivalent to 4 to 6 Gms. daily of previous sulfonamides. Does not produce renal complications.[1]

with low incidence of sensitivity reactions...
KYNEX is extremely low in toxic potential.[2,3] Cutaneous or other objective sensitivity reactions are rare, as demonstrated in a large scale evaluation of clinical toxicity.[2] Also minor subjective reactions are less likely to develop when the recommended dosage is used.[2]

Dosage: Adults, 0.5 Gm. (1 tablet) daily following an initial first-day dose of 1 Gm. (2 tablets).

TABLETS, 0.5 Gm., Bottles of 24 and 100.

also available—KYNEX Acetyl Pediatric Suspension, cherry-flavored, 250 mg. sulfamethoxypyridazine activity per teaspoonful (5 cc.). Bottles of 4 and 16 fl. oz.

1. Editorial, New England J. Med. 258:48, 1958.
2. Vinnicombe, J.: Antibiotic Med & Clin. Ther. 5:474, 1958.
3. Sheth, U. K., et al.: Ibid., p. 604, 1958.

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WHENEVER SULFAS ARE INDICATED

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Sulfamethoxypyridazine Lederle

Lederle **LEDERLE LABORATORIES,** a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

COUNTY SECRETARIES—PR SEMINAR

(Continued from Page 335)

Payne, M.D., (Kent); D. Bruce Wiley, M.D., (Macomb); W. M. LeFevre, M.D., (Muskegon); G. B. Saltonstall, M.D., (Northern Michigan); C. N. Hoyt, M.D., (St. Clair); W. W. Babcock, M.D., (Wayne); M. A. Darling, M.D., (Wayne); J. J. Lightbody, M.D., (Wayne); L. Fernald Foster, M.D., (Wayne); G. T. McKean, M.D., (Wayne); A. E. Schiller, M.D., (Wayne).

Executive Secretaries.—Howard Kahn (Bay-Arenac-Iosco); Ruth Simmons, (Genesee); Jack Kantner, (Ingham); W. G. McClimans, (Kent); Roger L. Warnshuis, (Kent); Lucy W. Bartlett, (Muskegon); Mrs. Mary G. Haines (Oakland); Else Kolhede, (Wayne).

Woman's Auxiliary Representatives.—Mrs. Robert E. Reagan (Berrien); Mrs. Paul Ivkovich (Mecosta-Osceola-Lake); Mrs. Harold H. Gay, (Midland); Mrs. C. I. Owen (Wayne).

Michigan State Medical Assistants Society Representatives.—Mrs. Reta V. Shedd, (Calhoun); Mrs. Louise Sleziak (Jackson); Miss Donna Hislop (Muskegon).

Public Relations Committee.—W. G. Gamble, M.D., (Bay-Arenac-Iosco); H. C. Hansen, M.D., (Calhoun); J. L. Leach, M.D., (Genesee); W. Z. Rundles, M.D., (Genesee); C. K. Stroup, M.D., (Genesee); David Kahn, M.D., (Ingham); H. G. Benjamin, M.D., (Kent); E. W. Schnoor, M.D., (Kent); Stanley L. Hoffman, M.D., (Livingston); F. E. Luger, M.D., (Saginaw); C. L. Weston, M.D., (Shiawasee); R. W. Teed, M.D., (Washtenaw); E. H. Fenton, M.D., (Wayne); E. C. Long, M.D., (Wayne); G. E. Millard, M.D.; (Wayne); E. S. Oldham, M.D., (Gratiot-Isabella-Claire); A. E. Schiller, M.D., (Wayne); L. Fernald Foster, M.D., (Wayne); T. P. Wickliffe, M.D., (Houghton-Baraga-Keewenaw).

Participants on the Program.—Gaylord S. Bates, M.D., (Dearborn); James R. Breakey, Jr., (Ypsilanti); H. W. Brenneman, (Lansing); Ralph R. Cooper, M.D., (Detroit); M. A. Darling, M.D., (Detroit); Lester P. Dodd, LL.B., (Detroit); Hugh M. Fuller, M.D., (Detroit); Senator Edward Hutchinson, (Fennville); K. H. Johnson, M.D., (Lansing); Jay C. Ketchum, (Detroit); Luther R. Leader, M.D., (Detroit); Wm. M. LeFevre, M.D., (Muskegon); Max L. Lichter, M.D., (Melvindale); J. J. Lightbody, M.D., (Detroit); James E. Mahan, M.D., (Allegan); G. Thomas McKean, M.D., (Detroit); J. W. Miller, (Lansing); A. Hazen Price, M.D., (Detroit); G. B. Saltonstall, M.D., (Charlevoix); A. E. Schiller, M.D., (Detroit); R. D. Swanson, D.D., (Alma); R. W. Teed, M.D., (Ann Arbor).

Guests.—Henry Alexander, (Detroit); Mrs. G. E. Anthony, (Flint); Mrs. N. F. Bach, (Owosso); Mr. Ray Ballard (Huntington Woods); Mrs. T. A. Barton, (Howell); Rudy Bolich, (Marquette); W. W. Boyles, (Detroit); Russell J. Burns, (Ann Arbor); Verne Collet, (Detroit); Mr. A. L. Crampton, (Lansing); Mrs. Victor Curatolo (Mt. Clemens); Mrs. M. A. Darling, (Detroit); Peter B. Docherty, (Lansing); Lester P. Dodd, LL.B., (Detroit); John A. Doherty, (Lansing); Mrs. R. W. Emerick, (Fremont); James Foley, (Detroit); Dr. & Mrs. E. J. Geist, Jr., (Rochester); L. Gordon Goodrich, (Detroit); Mrs. W. G. Gamble, Jr., (Bay City); Mrs. L. E. Grate, (Charlevoix); Mrs. Everette Gustafson, (Pontiac); Mrs. R. T. Hammel, (Tecumseh); Mrs. H. C. Hansen, (Battle Creek); A. E. Heustis, M.D., (Lansing); Dan D. Jackson, (Lansing); Mrs. P. V. Kane, (Mt. Clemens); Jay C. Ketchum, (Detroit); Mrs. J. H. Kitchell, (Grand Haven); Peter E. Klein, (Detroit); Dr. and Mrs. P. T. Lahti, (Birmingham); Louis LeFevre, M.D., (Muskegon); Mrs. L. L. Loder, (Muskegon); Mrs. J. W. Logie, (Grand Rapids); Mrs. F. E. Luger, (Saginaw); Mrs. J. E. Manning, (Saginaw); R. H. McDonough, (Grand Rapids); Mrs. J. B. Meads, (Jackson); Mrs. H. C. Mitchell, (Coldwater); Mrs. G. E. Mohney, (Port Huron); John Nelson, (Detroit); Irvin Nichols, (Lansing); Harry Parke, (Lansing); Mr. & Mrs. Tom Paton, (Detroit); Mrs. C. G. Porter (Three Rivers); Marlouise Redman, (Detroit); Dr. and Mrs. F. P. Rhoades, (Detroit); Chuck Rickett, (Traverse City); Mrs. Louis Rosenbaum (Ishpeming); Mrs. D. L. Rousseau, (Mt. Clemens); Helen Schick, (Detroit); Leonard D. Schramm, (Wayne); J. E. Shadduck, (Lansing); Mrs. R. W. Shook, (Kalamazoo);

(Continued on Page 340)

RECORD OF ATTENDANCE AT MSMS COUNTY SECRETARIES-PUBLIC RELATIONS SEMINAR
JANUARY 31-FEBRUARY 1, 1959

County or District Medical Society	*President*	*President-Elect*	*Secretary*	*County PR Chairmen*	*Editor*	*MSMS Councilor*	*MSMS PR Committee*	*Executive Secretary*
Allegan	X	O	X	O	N	N	N	N
Alpena-Alcona-Presque Isle	O	O	X	X	N	N	O	N
Barry	X	N	X	O	N	N	O	N
Bay-Arenac-Iosco	X	O	X	O	O	X	X	X
Berrien	O	O	O	X	O	N	N	N
Branch	X	X	X	O	X	X	N	N
Calhoun	X	O	X	X	O	XX	X	N
Cass	O	N	O	N	N	N	N	N
Chippewa-Mackinac	O	O	O	O	N	O	O	N
Clinton	O	O	X	X	N	N	N	N
Delta-Schoolcraft	O	O	O	O	N	N	N	N
Dickinson-Iron	O	O	X	O	N	N	N	N
Eaton	O	O	O	N	N	N	N	N
Genesee	O	X	X	X	X	O	XXXO	X
Gogebic	O	O	O	O	N	N	N	N
Grand Traverse-Leelanau-Benzie	O	O	O	O	O	X	O	N
Gratiot-Isabella-Clare	O	O	X	X	N	X	XO	N
Hillsdale	O	O	X	N	N	N	N	N
Houghton-Baraga-Keweenaw	O	O	O	O	N	X	X	N
Huron	O	N	X	O	N	N	O	N
Ingham	O	O	X	X	O	X	X	N
Ionia-Montcalm	X	X	X	O	N	N	N	N
Jackson	X	X	X	XX	N	N	N	N
Kalamazoo	X	O	X	O	O	X	N	N
Kent	X	X	O	X	O	X	XXO	XX
Lapeer	O	N	X	O	N	N	O	N
Lenawee	O	X	X	O	N	N	N	N
Livingston	X	O	X	X	N	N	N	N
Luce	O	N	O	N	N	N	N	N
Macomb	X	X	X	X	N	N	O	N
Manistee	X	O	O	O	N	N	N	N
Marquette-Alger	O	O	X	O	N	N	O	N
Mason	O	N	O	O	N	N	N	N
Mecosta-Osceola-Lake	X	O	X	X	N	N	N	N
Menominee	O	O	O	X	N	N	N	N
Midland	O	O	O	O	N	N	N	N
Monroe	O	O	X	X	N	N	X	N
Muskegon	X	X	X	O	N	N	O	N
Newaygo	O	O	X	O	N	N	N	N
North Central	O	O	X	N	N	N	O	N
Northern Michigan	O	O	X	X	O	N	X	N
Oakland	X	X	X	X	O	N	OO	N
Oceana	O	N	O	N	N	N	N	N
Ontonagon	O	O	O	O	N	N	O	N
Ottawa	O	O	X	X	N	N	N	N
Saginaw	O	O	O	X	O	N	XO	O
St. Clair	O	X	X	O	O	X	X	N
St. Joseph	O	O	X	X	N	N	O	N
Sanilac	O	O	O	O	N	N	N	N
Shiawassee	X	O	O	O	N	N	N	N
Tuscola	O	O	O	N	N	N	N	N
Van Buren	O	X	X	O	N	N	N	N
Washtenaw	O	O	X	N	X	O	XO	O
Wayne	X	X	X	X	X	XXX	XXXXX	X
X							OOOO	
Wexford-Missaukee	O	O	X	O	O	N	N	N

X—Present
O—Absent
N—No such representative from the county medical society.

Others present at the Seminar were: Woman's Auxiliary representatives 4; Michigan State Medical Assistants Society representatives 3; Michigan Medical Service representatives 16; Seminar Participants of the Program 22; guests 58.

COUNTY SECRETARIES—PR SEMINAR

(Continued from Page 338)

Mrs. R. S. Simpson, (Battle Creek); Mrs. F. W. Smith, (St. Johns); Mrs. E. L. Stone, (Jackson); Mr. Ben Stratton, (Lansing); Mrs. D. I. Sugar, (Detroit); Franz Topol, (Kalamazoo); Kay Topp (Saginaw); Mrs. J. L. Tyson, (Big Rapids); John E. Verbiest, (Detroit); Marguerite M. Vergosen, (Detroit); Mrs. J. E. Walters, (Big Rapids); Mrs. M. R. Weed (Detroit); Mrs. F. M. Wessels, (Hillsdale); Dr. and Mrs. E. J. Westfall, (Berkley, Mich.); Mrs. C. L. Weston, (Owosso); Mrs. D. Bruce Wiley (Utica); Mrs. S. A. Yannitelli, (Battle Creek).

EXECUTIVE SECRETARIES CONFERENCE

On February 2, in the third of such meetings, eight of the nine county medical society executive secretaries in the state got together in Detroit for a workshop-type session with top staff members of MSMS.

Under the chairmanship of Wm. J. Burns, MSMS Executive Director, every phase of medical organization work was discussed: Hugh W. Brenneman and Warren Tryloff (public relations), Dick Philleo and Jack Pardee (legislation and media), Jay C. Ketchum and Gordon Goodrich (Blue Shield), and Robert Roney (membership and accounting).

Representing their respective county societies were Lucy Bartlett (Muskegon), Mary Haines (Oakland), Howard Kahn (Bay-Arenac-Iosco), John B. Kantner (Ingham), Else Kolhede (Wayne), Flora Mayer (Washtenaw), Ruth Simmons (Genesee), and Roger Warnshuis and W. G. McClimans (Kent). Sitting in as guests were J. A. Doherty of the Michigan Health Council and Dan Jackson of the Michigan Tuberculosis Association.

As an indication of the executive secretaries' enthusiasm for this type of workshop, they voted at its conclusion to ask The Council to continue it as an annual event.

LAWMAKERS CONVENE

Once again flags on the Capitol roof over the Michigan Senate and House signal passersby that the 144 representatives of the people have settled down for their annual four to six months' tussle with the problems of state.

The first tussle took place on the opening day of the session in the House. Normally the "majority" party assumes the prerogative of electing the officers of the House and naming the standing committees, thereby pretty much controlling the flow of legislation for two years. However, the voters last November split the membership evenly at fifty-five to fifty-five, and until the opening gavel sounded, a stalemate appeared in the offing.

Shortly before the Legislature convened, however, one of the Democratic members, Josephine Hunsinger of Detroit, went into a Detroit hospital for surgery, and her absence on opening day gave the balance of power to the Republicans. Despite bitter protests of the Democrats, they proceeded to launch the Session with their own party members firmly in control, although they did proffer some patronage appointments and committee controls to their short-handed opponents.

Over in the Senate, even though Republicans lost one district last fall to the Democrats, they still maintain a twenty-two to twelve majority and have organized that body along former lines.

At the end of the first four weeks thirty-four bills of greater or lesser interest to the medical profession have been introduced, and MSMS is in the process of drafting some proposals for early introduction. Main concern in both houses, and of both political parties, centers around how to raise new taxes, or conversely, how to cut necessary state services to fit present revenue sources.

Capitol observers predict passage of some sort of combination of income and corporate profits taxes. Arriving at this magical legislative formula may extend the Session well into the summer months this year.

MSMS PLANS TELEVISION SHOW IN KALAMAZOO

J. G. Malone, M.D.
President, Kalamazoo Academy of Medicine

On April 4, television viewers within range of WKZO-TV will see a special, live, one-hour show on The Family Doctor, produced by MSMS in cooperation with the Kalamazoo County Medical Society and neighboring county medical societies.

Following the outstanding success of the original production done in connection with the 1958 Annual Session in Detroit, the MSMS PR Committee authorized similar shows to be produced over several outstate TV stations.

Members of county medical societies within the area will be invited to appear on the show. The role of the family doctor is emphasized with special attention given to those modern medical and surgical procedures which are performed in the doctor's office.

It is expected that the show will be produced in four different cities during 1959.

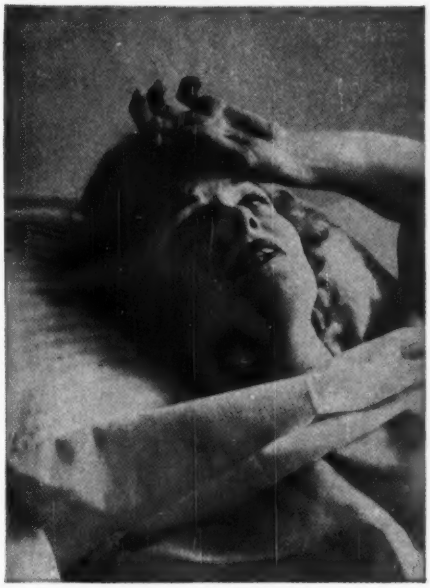
TO WEIGH LESS

The Michigan State Medical Society's Public Relations Committee has embarked on a new program of service to MSMS members and through them to their patients.

Called a "pamphlet of the month plan," a special committee will designate one pamphlet each month which the State Society will supply free of charge in the number requested to any doctor

(Continued on Page 342)

APPREHENSIVE surgical and obstetrical patients



respond well to

VISTARIL*

hydroxyzine pamoate

Outstanding safety
establishes peaceful indifference to preoperative preparation *without serious hypotensive effects.*

Psychotherapeutic potency
makes possible the maintenance of an adequate degree of narcosis with reduced doses of narcotics.

relieves tension and controls emesis in both postoperative and postpartum patients.

Recommended Oral Dose: up to 400 mg. daily in divided doses
Recommended Parenteral Dose: 25-50 mg. (1-2 cc.) I.M. q.4 h., p.r.n.

Supplied as: Vistaril Capsules—25 mg., 50 mg., 100 mg.
Vistaril Parenteral Solution—10 cc. vials and 2 cc.
Steraject® Cartridges, each cc. containing 25 mg.
hydroxyzine (as the HCl)

Pfizer *Science for the world's well-being* *Trademark

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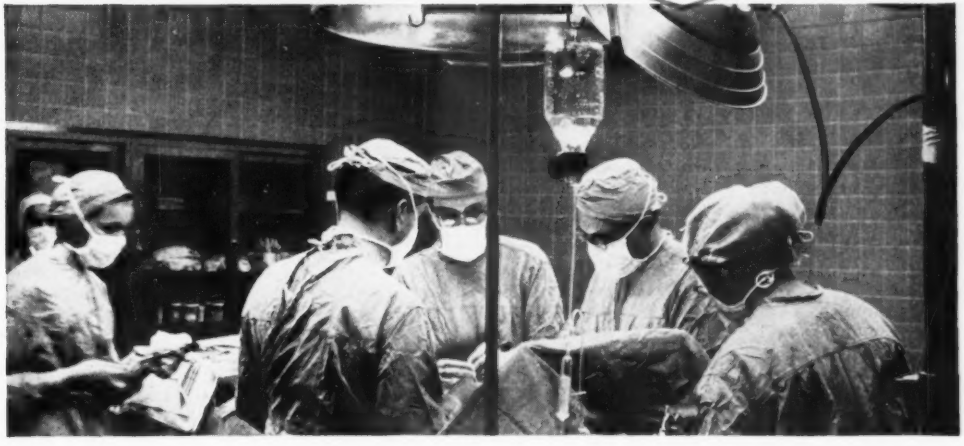


TO WEIGH LESS

(Continued from Page 340)

wishing to distribute said pamphlet via his waiting room.

The choice of the pamphlet of the month will be based upon current interest, plus the authenticity and attractiveness of the pamphlet. Most of the pamphlets will be obtained from the American Medical Association.

The purpose of "the pamphlet of the month plan" is to encourage greater distribution of these valuable aids by better selection and more uniform distribution.

The pamphlet of the month for April, 1959, is "The Healthy Way to Weigh Less." All doctors desiring copies of this pamphlet, which is published by the Council on Foods and Nutrition of the American Medical Association, may write to: Public Relations Library, Michigan State Medical Society, Post Office Box 539, Lansing, Michigan.

COUNTY SOCIETIES OBSERVE DIABETES WEEK

A partial report of county societies which participated in the nationwide observation of Diabetes Week, beginning November 16, has just been received.

Most societies co-operated in distributing Dreypaks or offering free urinalysis in physicians' offices. Local diabetes committees also promoted educational news stories and co-operated in local TV or radio shows.

Participating county societies include Calhoun, Chippewa-Mackinac, Ionia-Montcalm, Kent, Macomb, Mason, Midland, Monroe, Muskegon, Saginaw and Wayne.

PROFESSIONAL CONDUCT EXPOUNDED

At a recent meeting in Detroit, J. J. Lightbody, M.D., of Detroit, Vice Speaker of the MSMS House of Delegates, addressed a group of young engineers and related his view on professionalism. Sharing the bill with him was an industrialist and religious leader.

The program was designed to provide the young engineer with three personal interpretations of traits that are fundamental to professional conduct. The presentations covered professionalism—its ethics, its attitudes, its personal values and its personal responsibilities.

MIDLAND CMS AWARDS SCIENCE FAIR WINNERS

Youths who prepared winning exhibits for the Ninth Annual Midland Science Fair received a plaque and a year's subscription to the *Scientific American* magazine from the Midland County Medical Society. Identical prizes were awarded to winners in the junior and senior divisions.

HIPPOCRATES AND MORE!

By ROBERT D. SWANSON, D.D.
President, Alma College
Alma, Michigan

Neophyte that I am in the mysteries of your profession, I followed my instinct and curiosity as an historian to what, by tradition at least, is supposed to be the cradle of your science. Having heard all of my life about the Hippocratic oath and the solemn obligations which are imposed upon anyone who takes it, I turned to my history books. And there I found a great deal that I had never known before. This fellow Hippocrates was quite a character. Apparently, he was sufficiently successful in building up a reputation for himself during his lifetime in Greece in the fifth century B.C. so that after his death a rather diverse and voluminous tradition settled about his name. Dante, in his Divine Comedy, makes Hippocrates almost a god. He calls him "a counsellor . . . whom nature made for the benefit of her favorite creature, man." Marcus Aurelius, on the other hand, a typical Roman, with characteristic Roman bluntness, says: "Hippocrates, after curing many diseases, himself fell sick and died." So he was human after all.

But Hippocrates, I submit, was more than a physician. And that is the nub of what I want to say to you here today.

Historians seem to be agreed that Hippocrates is to be remembered, not so much for his role in the practical arts of medicine or any of its basic sciences. Rather, it was his attitude toward health and disease and his stature as a Greek scientist that have placed him in the pantheon of great thinkers and teachers. I learned, for instance, that Hippocrates was among the first to suggest that disease comes from natural rather than from supernatural causes. I have heard many times this familiar phrase, "the healing power of nature," but not until I began to prepare these few remarks did I know that this is credited to Hippocrates. Apparently, Hippocratic therapeutics went considerably beyond the narrow confines of the science of medicine and the art of healing the sick.

Now all of this suggests something to me. Hippocrates was more than a professional. He was a man of his age, a member of what we would call the intellectually elite, and as such his influence upon his generation and upon history must be measured in broader terms than that of his profession.

The analogy should be clear and the point that I want to make with you should be obvious. Those of us who are known as professional men (and by

(Continued on Page 348)

Extracted from keynote address presented by Dr. Swanson at 1959 Annual County Secretaries-Public Relations Seminar, Detroit, January 31.

ANNOUNCING

the first "wide range" antihypertensive

MILD MODERATE SEVERE

DIUPRES

DIURIL® WITH RESERPINE

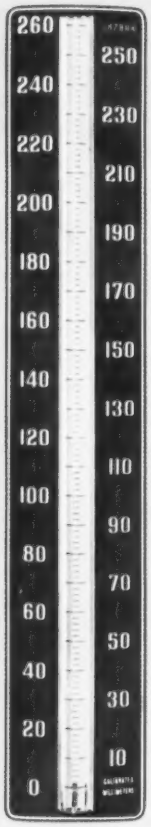
more hypertensives can be better controlled
with **DIUPRES** than with any other agent
. . . with greater simplicity and convenience

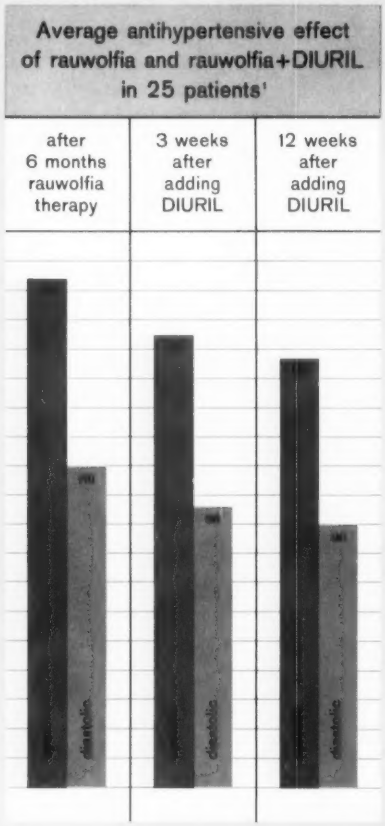
a logical alliance of two antihypertensives
you know and trust provides

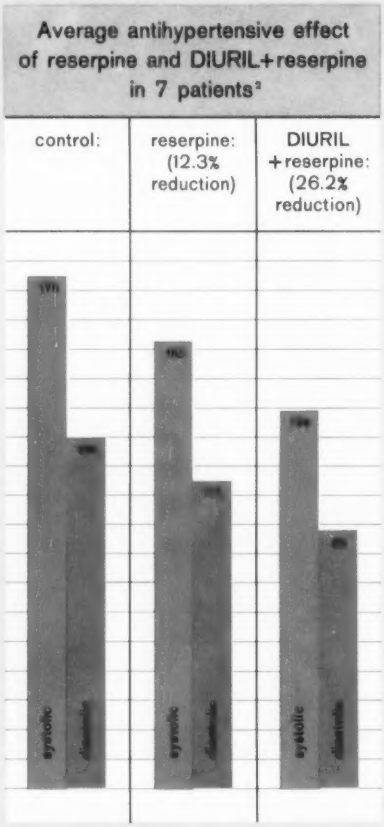
increased effectiveness, decreased side effects

potentiated effect

DIUPRES produces an effect greater than either DIURIL or reserpine alone. It is effective in many patients who respond inadequately or not at all to either DIURIL or reserpine.







DIUPRES

DIURIL® WITH RESERPINE

effective therapy for most patients

DIUPRES by itself usually provides effective therapy for a majority of patients with mild or moderate hypertension, and even for many patients with severe hypertension. Many patients now treated with other agents which frequently cause distressing side effects can be adequately managed with well tolerated DIUPRES.

provides basic therapy

Should other drugs need to be added to DIUPRES, they can be given in much lower than usual dosage so that their side effects are often strikingly reduced.

rapid onset of effect

The antihypertensive action of DIUPRES is rapidly evident. (Considerable time may elapse before the antihypertensive effect of reserpine alone is observed.)

fewer and less severe side effects

DIUPRES may be expected to cause fewer and less severe side effects than are encountered with other antihypertensive therapy. (Since DIURIL and reserpine potentiate each other, the required dosage of each is usually less when given together as DIUPRES than when given alone. Such reduction in dosage makes side effects less likely to occur.)

often obviates weight gain

DIUPRES minimizes the problem of weight gain seen with reserpine (reserpine alone has been reported to produce weight gain in 50 per cent of patients).[1,4]

virtually eliminates fluid retention

DIUPRES is not likely to cause either clinical or subclinical retention of sodium and water. (Hypotensive drugs, particularly rauwolfia[5] and hydralazine,[6] may cause fluid retention. Even when such retention is subclinical, their antihypertensive effectiveness is diminished.[6])

diet more palatable

With DIUPRES, there is less need for rigid restriction of dietary salt, which patients find so burdensome.

> *"It may well be that the drug* [DIURIL] *produces the benefits of a markedly restricted low sodium diet but without its hardships."*[3]

subjective and objective improvement

DIUPRES allays anxiety and tension, thus reducing the emotional component of hypertension. Organic changes of hypertension may be arrested and reversed. Headache, dizziness, palpitations and tachycardia are usually promptly relieved by DIUPRES. When the *anginal syndrome* accompanies hypertension, the administration of DIUPRES may also cause diminution or even disappearance of this syndrome concurrent with control of the hypertension.

convenient, controlled dosage

Instead of two separate prescriptions, you write one prescription . . . the patient takes one tablet, rather than two different tablets . . . and the dosage schedule is easier for the patient to remember and follow.

> *"patients have fewer lapses and make fewer mistakes in dosage, the simpler the regimen can be made. Therefore I do not hesitate to use more than one medicament combined in one tablet, provided this gives approximately the correct dosage of each."*[6]

economical

DIUPRES will cost the patient less than if he were given two separate prescriptions for its components.

Indications:
DIUPRES is indicated in hypertension of all degrees of severity. It can be used in the following ways:

- as total therapy
- as primary therapy, adding other drugs if necessary
- as replacement or adjunctive therapy in patients now treated with other agents

Precautions:
The precautions normally observed with DIURIL or reserpine apply to DIUPRES. Additional information on DIUPRES is available to physicians on request.

Recommended dosage range:
DIUPRES-500—one tablet one to three times a day.
DIUPRES-250—one tablet one to four times a day.
If necessary, other agents may be added.
If the patient is receiving ganglion blocking agents or hydralazine, their dosage should be cut by 50 per cent when DIUPRES is added.

"Diupres-500

DIUPRES-500

500 mg. DIURIL (chlorothiazide), 0.125 mg. reserpine.
Bottles of 100, 1000.

"Diupres-250

DIUPRES-250

250 mg. DIURIL (chlorothiazide), 0.125 mg. reserpine.
Bottles of 100, 1000.

the first "wide range" antihypertensive

DIUPRES

DIURIL® WITH RESERPINE

1. Rochelle, J. B., III, Bullock, A. C., and Ford, R. V.: Potentiation of antihypertensive therapy by use of chlorothiazide, *J.A.M.A.* 168:410, Sept. 27, 1958. 2. Freis, E. D., Wanko, A., Wilson, I. M., and Parrish, A. E.: Treatment of essential hypertension with chlorothiazide (Diuril), *J.A.M.A.* 166:137, Jan. 11, 1958. 3. Freis, E. D.: Treatment of hypertension. (Presented at the Annual Meeting of Southern Medical Association, Nov. 13, 1957.) 4. Moyer, J. H., Dennis, E., and Ford, R.: Drug therapy (Rauwolfia) of hypertension, *A.M.A. Arch. Int. Med.* 96:530, Oct. 1955. 5. Perera, G. A.: Edema and congestive failure related to administration of rauwolfia serpentina, *J.A.M.A.* 159:439, Oct. 1, 1955. 6. Wilkins, R. W.: Precautions in use of antihypertensive drugs, including chlorothiazide, *J.A.M.A.* 167:801, June 14, 1958.

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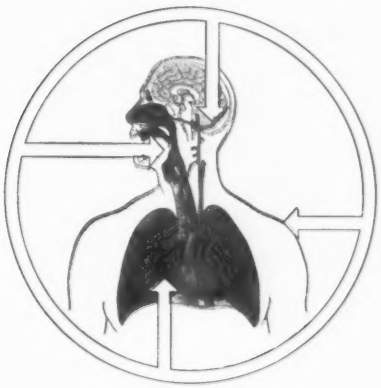
Now—All cold symptoms can be controlled



Provides Triaminic for more complete and more effective relief from nasal and paranasal congestion because of systemic transport to *all* respiratory membranes—without drawbacks of topical therapy.†

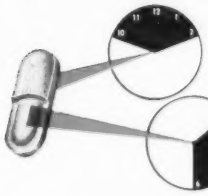
Provides well-tolerated APAP (N-acetyl-p-aminophenol) for prompt and effective analgesic and antipyretic action to make the patient more comfortable.

Provides Dormethan (brand of dextromethorphan HBr) for non-narcotic antitussive action on the cough reflex center in the medulla—as effective as codeine but without codeine's drawbacks.

Provides terpin hydrate, classic expectorant to thin inspissated mucus and help the patient clear the respiratory passages.

†Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

Special "timed release" design



first—the outer layer dissolves within minutes to give 3 to 4 hours of relief

then—the inner core releases its ingredients to sustain relief for 3 to 4 more hours

also available for those patients who prefer liquid medication: **Tussagesic suspension**

Each TUSSAGESIC tablet provides:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Dosage: One tablet in the morning, midafternoon and in the evening, if needed.

Tussagesic* *timed-release tablets*

Contains* **TRIAMINIC *to* STOP *running noses and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

HIPPOCRATES AND MORE!

(Continued from Page 342)

that I am not meaning physicians only)—we professionals have been just that and little more. We have abdicated what ought to be our leadership in the community by hiding behind what we conveniently call our professional status. We are lawyers, we are dentists, we are doctors, we are educators; and seldom do we meet apart from our professionalism. Here we are, supposedly the intellectually elite of America, who by training and experience ought to be convinced of the inestimable worth of human reason and the power of the intellect. But for whom, and for what?

Gilbert Highet, the noted historian and literary figure of Columbia University, has observed that most of us live with the idea that through serving one's own group one can benefit mankind. A nationality, a profession, a creed often commands all one's loyalty. And perhaps that is as it should be. On the other hand, there is the larger scene and the wider citizenship which each one of us is called upon to demonstrate. And, as members of one of the "learned professions" it occurs to me you have an opportunity by precept and example to lead us back to national health above and beyond the physical wellbeing of people.

Let me show you what I mean by our present state of health. You will recall the pessimism of Hamlet, Prince of Denmark, where he says: "The times are out of joint, O cursed spite that ever I was born to set them right!" That, you must agree, is more than a verdict of frustration and hopelessness. It is a tragic view of history, rendered in a mind that has ceased to think.

We have regarded Russians as "country bumpkins" in the whole area of general intelligence and learning. So intent have we been on watching the social and political aspects of the Communist revolution, we have failed to recognize that it is primarily an intellectual revolution. It has been rather disconcerting to discover that Russian students are actually learning something more than the "party line." They seem to have taken intelligence seriously. And all the while we thought the Kremlin was suppressing the accumulation of knowledge! It goes without saying that we know they are twisting the truth about a good many things. But apparently we have been so preoccupied with this side of their little scheme we have missed the hard, cold fact that among other things they plan to out-think us. And that, we know, can't be done with empty heads!

Strange, is it not, how it took a crisis of cosmic proportions to make us face the fact that learning and intelligence are something more than a franchise of democracy? If learning and intelligence are prerequisites for life in a dictatorship, particularly a dictatorship of dialectical materialism: how much greater is the imperative for serious, disciplined training of the mind that is to live in a democracy where initiative and ingenuity are the fruits of freedom.

Now believe me—this is not just a rhetorical question. It is the heart of the matter. Are we going to be a free people or aren't we? History is at the point of no return, and we have now to decide how we are going to run the race for survival. Will it be as free men, or not? Must the Russians call the ground rules? Do we have to play the game their way? Is freedom so delicate and human liberty so sensitive that they cannot stand the gaff of being challenged? Why are we so embarrassed and jittery these days? Why the sudden hysteria, the talk of crash programs and emergency measures?

I'll tell you why. Because, until a few weeks ago, we took our freedom too lightly. We spent so much time talking about it as a God-given right that we have failed to understand that freedom is also a human responsibility. We boasted of our emancipation, whereas we should have recognized that we were just unbuttoned! Not only are we soft-hearted—we have been soft-headed.

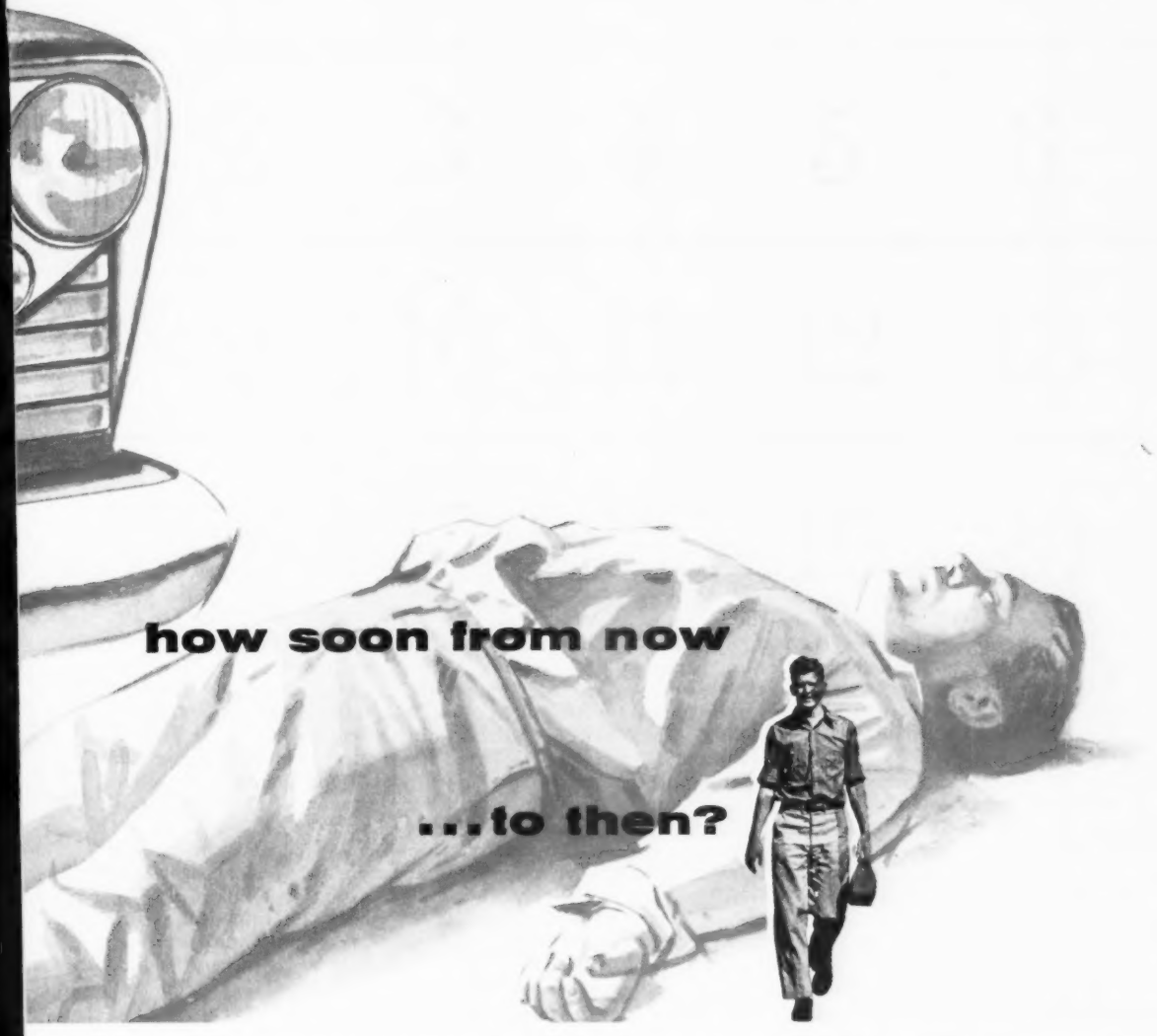
In the process, we have developed an easy tolerance for the Average. It has become a cult with us. We have glorified the Common Man as an expression of our age. Excellence of achievement and superiority of accomplishment are the objects of sneering contempt in a great many circles. For some strange reasons, we have failed to appreciate the fact that our democracy is the product of a strenuous intellectual revolution. By the same token, the freedoms which we prize and the institutions that we covet will remain healthy and strong only to the extent that we as a people develop our capacities to reason and to think.

The real issue before us is not the challenge of Russian supremacy, whatever and wherever that may be. This is important, to be sure. It is crucial, in fact. But it is not primary. The real question is: How much do we want freedom?

I spoke a few moments ago of Gilbert Highet. In the closing paragraph of his little book, "Man's Unconquerable Mind," he pays a magnificent tribute to the men of your profession and to the contribution which they have made, not only to the science of medicine but to the world at large. He speaks of a quiet and unpretentious laboratory that stands among the trees at Oxford—there Flory and his team perfected penicillin. He tells of Montpellier where Rabelais lectured on Greek medicine and modern anatomy. He describes that austere barrack in Paris, "busy, ugly and noisy," he says. But it is there that Pasteur and a host of other brilliant minds worked and taught.

He closes the book with these words:

"Even to tread the floor of such a room, knowing no more than the outlines of the work done there . . . is to dedicate oneself to the service of all mankind."



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Complete food, Mead Johnson

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When you prescribe Sustagen during convalescence, you help fulfill the critical needs of your patients for increased amounts of calories, protein and vitamins. "In some instances of acute illnesses, injury, or surgery, intensive nutritional therapy may be the deciding factor in the outcome."[1] Sustagen, because it generously supplies all known essential nutrients in convenient concentrated form, helps speed recovery.

Mead Johnson
Symbol of service in medicine

[1]Halpern, S. L.: Ann. New York Acad. Sc. 63: 147-164 (Oct. 28) 1955.

SU-153M

AMA Washington Letter

THE MONTH IN WASHINGTON

Contrary to the usual procedure in a first session, the 86th Congress this year already is getting on with its work, particularly in health fields. In past Congresses, not much is accomplished the first session, with most bills held over to the second, which always is an election year.

The session was only weeks old when action was under way. Here are some of the developments, portending enactment before adjournment of a number of bills:

1. After hearings, a subcommittee of the Senate Banking and Currency Committee reported favorably on a housing bill that contained provision for mortgage guarantees for proprietary nursing homes. Subsequently, the measure was passed by the Senate.

At this writing the House is at work on another housing bill that also contains the nursing home loan section. With House passage assumed, the question is whether the bill (containing more money than the White House wants spent) will be vetoed, and if vetoed whether it can be enacted anyway by two-thirds majorities in both houses.

2. Without bothering with hearings the House Ways and Means Committee overwhelmingly approved the Keogh bill to encourage retirement plans for the self-employment. It acted in line with the committee's established procedure to quickly reapprove bills that passed the House the previous Congress, but not the Senate. The Keogh bill is identical with a measure that easily cleared the House last session but lost out in the Senate.

3. Driven forward by Chairman Carl Vinson of the House Armed Services Committee, legislation to extend the regular and doctor drafts four years rolled through the House. However, indications were the Senate would take its time and give careful consideration to the need for a four-year extension.

4. The Senate Labor and Welfare Committee, under the leadership of Chairman Lister Hill (D., Ala.), demonstrated its interest in legislation for the aged. Senator Hill named a subcommittee to make a full year's study of problems of the aged, taking in housing, employment and recreation, as well as medical aspects.

Chairman of this subcommittee is Senator Pat McNamara, Detroit Democrat. Other Democrats are Senators John Kennedy of Massachusetts, Joseph Clark of Pennsylvania and Jennings Randolph of West Virginia. Republicans are Senators Everett Dirksen of Illinois and Barry Goldwater of Arizona.

5. At the same time, three members of the standing health subcommittee of the Hill Committee, Senators Jacob K. Javits of New York, Clifford B. Case of New Jersey and John Sherman Cooper, all Republicans, asked Congress to authorize a two-year study of the health problems of the entire population. If approved by Congress, the investigation would look into the quality and quantity of health services, problems of extending health insurance, special problems of the aged and minority groups, and the distribution of health services.

* * *

NOTES: Fifty-four Senators are supporting legislation that would project the U. S. farther into the international medical picture. It would set up an Institute of International Medical Research as part of NIH, establish an advisory council, and authorize spending of $50 million a year for research, part of it to go to foreigners in the form of grants.

Medicare has not been able to keep within the $72 million "ceiling" recommended by Congress for the present year. Through the Navy it is asking $6 million more. In addition, Army and Air Force will shift funds to meet the bill, estimated at $93.6 million. The budget asks $89 million for next year, in expectation that restrictions begun in October will bring a saving of between $4 million and $5 million.

Medicine has won an argument within the new Federal Aviation Agency. As a consequence, FAA's civil air surgeon will assist the administrator in setting standards for fitness, direct physical examination and inspection programs, advise on research needs, and evaluate all of FAA's medical personnel plans.

The President's health budget, now under scrutiny in Congress, is expected to be substantially increased. As an example of the White House efforts for economy, Mr. Eisenhower recommended $101.2 million for Hill-Burton hospital construction grants, in contrast to $186.2 million HB has for the current fiscal year.

Through the Civil Service Commission, the Federal government is attempting to recruit physicians for service in this country and abroad. Salary ranges from $7,510 to $12,770.

The Administration is pressing Congress to pass legislation giving the U. S. power to regulate coal-tar and other colors in foods, drugs and cosmetics. One objective is to require that manufacturers demonstrate that the colors are harmless before the products can be put on the market.

A workhorse "mycin" for common infections

respiratory infections

prompt, high blood levels

consistently reliable and reproducible blood levels

minimal adverse reactions

With well-tolerated CYCLAMYCIN, you will find it possible to control many common infections rapidly and to do so with remarkable freedom from untoward reactions. CYCLAMYCIN is indicated in numerous bacterial invasions of the respiratory system—lobar pneumonia, bronchopneumonia, tracheitis, bronchitis, and other acute infections. It has been proved effective against a wide range of organisms, such as pneumococci, H. influenzae, streptococci, and many strains of staphylococci, including some resistant to other "mycins." Supplied as Capsules, 125 and 250 mg., vials of 36; Oral Suspension, 125 mg. per 5-cc. teaspoonful, bottles of 2 fl. oz.

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Editorial Comment

120 YEARS OF SOCIAL SECURITY

Our medical scientists have apparently suffered a shocking setback. Having lugged the average American up to the average age of seventy, they are now confronted with the spectacle of an Iranian who claims to be 185 and who may be, according to investigating doctors, from 158 to 188.

Inasmuch as the gentlemen in question suffers only from a weakness in the eyes, ears and some nerves—a finding which could be made regarding most of us only one-quarter of his age—this 1773 model presumably could qualify to drive a 1959 model.

Now, just supposing the old-time Persians had been following our modern practices, and had made it impossible for Sayed Ali Saleh Kutahi to get a new job as a rug weaver because he was "too old" at sixty-five—why, Kutahi would now be in the process of enjoying his 120th year of retirement on Social Security!

It's enough to make Washington think.—*B. C. Evening News*, December 29, 1958.

AMERICAN MEDICAL KNOW-HOW AIDS MENTAL HEALTH ABROAD

With more than half our hospital beds occupied by mental patients, Americans should be watching with keen interest a new medical study about to be undertaken in the Republic of Haiti.

The experiment is calculated to determine whether, in many cases of mental illness, a drug may not be a more effective conditioning agent for therapy than a bed.

As reported by Science News Service, Nathan S. Kline, M.D., of Rockland State Hospital, New York, is co-operating with the Haitian Government in a clinical substitution of tranquilizers for hospitalization in treating Haiti's six to nine thousand mentally ill. The drugs are being made available by pharmaceutical companies in the United States.

The study was suggested by results of findings from similar experiments in mental hospitals in this country. It is hoped that the disturbed patient, under the influence of the new drug therapy, can be treated psychiatrically in out-patient clinics, meanwhile remaining a member of the community with the personal dignity which that freedom implies, and saving the government untold millions in hospital care.

As Dr. Kline points out, a 1,000-bed hospital costs $15,000,000, compared to which the cost of tranquilizing drugs would be a pittance.

Perhaps this may turn out to be one case in which a forward-looking experiment in a so-called "under-developed" country may work in reverse, says the HNI, and we in the United States may end up borrowing a page from Haiti's book of accomplishment.—*Health News Institute*, January 21, 1959.

GO SEE A DOCTOR

Even in this age of wonder drugs and surgery on the living heart, it is not uncommon to hear complaints about the failures of medicine. In some circles, it is popular to note with considerable scorn that the doctors can't even cure a cold or provide a salve that will make warts disappear.

It is true that medical science has not yet come up with sure-fire remedies for these minor ailments or for cancer, heart disease and a number of other killers. But complaining about the ineffectiveness of medicine is about on a par with groaning that automobiles and jet planes are primitive means of transportation.

So they are, when compared with science fiction dreams of how men will get about a century hence. It is unfair to make such comparisons, however, without also noting that today's planes and cars are beyond all but the most extravagant dreams of half a century ago. The same can be said of medicine.

Many of the infectious diseases that often meant death at the turn of the century have now been virtually wiped out. Pneumonia, diphtheria, smallpox, scarlet fever, typhoid fever—these and others have almost lost their power to kill and maim. Poliomyelitis is coming under control. Phalanxes of research are storming the dread citadels of cancer, mental disease, coronary ailments.

The doctors don't know everything about human ills and how to deal with them. Yet they know much more, and are able to do vastly more, than was the case even a generation ago. Whoever carps about the failures of medicine may himself be in need of a little medical attention.—*Manistee News-Advocate*, January 6, 1959.

VETERANS BENEFITS PROGRAMS

It's time to take a close look at the sweeping range of *Veterans Benefits* programs now costing taxpayers—including veterans themselves—$5 billion annually.

New benefits which would push deficit spending still higher and increase inflationary pressures are sure to be proposed in the new Congress. Mean-

(Continued on Page 354)

re-evaluating tranquilizers?

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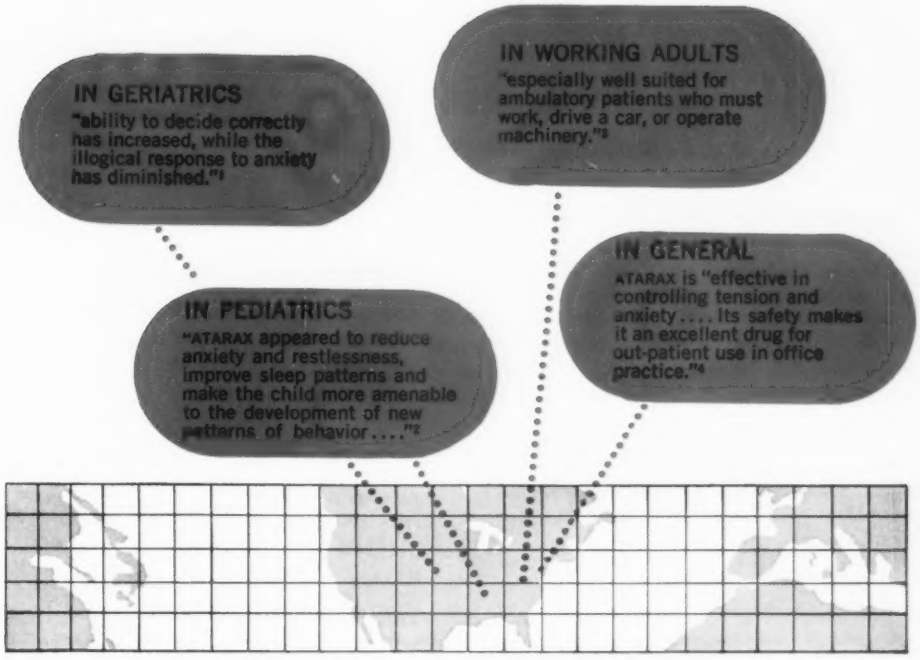

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For adult psychiatric and emotional emergencies	Parenteral Solution	25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Smigel, J. O., et al.: J. Am. Ger. Soc., in press. 2. Freedman, A. M.: Pediat. Clin. North America **5**:573 (Aug.) 1958. 3. Ayd, F. J., Jr.: New York J. Med. **57**:1742 (May 15) 1957. 4. Menger, H. C.: New York J. Med. **58**:1684 (May 15) 1958. 5. Coirault, M., et al.: Presse méd. **64**:2239 (Dec. 26) 1956. 6. Bayart, J.: Presented at the International Congress of Pediatrics, Copenhagen, Denmark, July 22-27, 1956.

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VETERANS BENEFITS PROGRAMS

(Continued from Page 352)

while, an opportunity to improve the present benefit system in ways that not only would provide better care for deserving veterans, but would also greatly reduce federal spending, is being ignored.

One program to which the Chamber now is giving careful study provides hospital care for veterans whose injury or illness has no connection whatever with military service. These veterans now occupy about two-thirds of the more than 120,000 beds in Veterans Administration hospitals.

To be admitted to a VA hospital, a veteran whose disability has no service connection, need only submit a statement of liabilities and assets and an affidavit of inability to pay for hospital care, though such inability is a matter of opinion in many cases, and VA lacks clear-cut legal authority to check these affidavits.

Even veterans discharged after only 90 days service can qualify for free hospital care, so long as beds are available, though their illness has nothing to do with military duty.

No one would deny any veteran whose disability occurred in line of duty all the free care he needs.

But it seems clear that such veterans could be given better care if VA hospitals did not have to carry such a heavy case load of veterans whose medical problems occurred outside the line of duty.

Chamber committees are gathering the facts on these programs and will bring them to the attention of the new Congress.—*Washington Report*, October 17, 1958—Chamber of Commerce of U. S.

ANOTHER INFLATION SPIRAL TWIST

Blue Cross-Blue Shield rates will go up again in January—this time by 18½ per cent. Health insurance rates never seem to climb by small percentages.

The rates thus will add to the spiral of inflation, about which, we're often told, most people are growing increasingly bitter and frustrated. This dwindling value of the dollar bill has everyone upset, particularly those older persons who must live on fixed incomes.

We've not seen many studies of the effects of inflation on personal saving habits, but if the dollar bill continues to slip it will be hard to answer the question, "Why save a dollar now if it will be worth only 75 cents when I need it?"

Only recently we heard Samuel Lubell, the noted pulse-taker of public opinion, comment that if anyone wanted to start a third political party, it could best be done by appealing to the almost universal desire for stable money and an end to inflation.

In the case of Blue Cross rates, the public has little choice but to pay. Their options on health insurance are very limited because of the group coverage aspect of Blue Cross operations. Health insurance rates, usually deducted from pay checks, have come to be regarded almost as a tax, over which people have no control. The direction in which this leads is unmistakable and disturbing.

It may be that health insurance is reaching a point where individuals who wonder if they are facing diminishing returns will refuse to pay. If this happens, health insurance organizations may be forced to cut back their expenditures—and their benefits.

This possibility apparently is not seriously considered by those who determine rates.

The question that then arises is what would the public's reaction be to a cutback in benefits instead of an increase in rates?—Editorial, *Detroit Free Press*, November 17, 1958.

HOSPITAL SERVICE IN CANADA

Canada's national hospital insurance program, in operation only eight months, now covers 10,700,000 of the country's 17,500,000 population.

By next January 1, all of Canada's ten provinces except Quebec are expected to be enrolled.

The Federal Government and the participating provinces split about 50-50 on the costs of standard ward hospital care and diagnostic services, the basic features of the program. Benefits are available to all residents of a participating province.

The Government expects the insurance plan will cost it $160,000,000 in the next fiscal year starting April 1. That appropriation, a $100,000,000 jump from the current fiscal year, allows for all provinces except Quebec.

The provinces raise their share of the cost in various ways.

Newfoundland, British Columbia and Alberta raise their funds from general tax revenues. Novia Scotia has a special 3 per cent sales tax. Ontario, Manitoba and Saskatchewan raise most of their health funds by collecting compulsory premiums.

In Ontario, the premium is $2.10 a month for a single person and $4.20 for a family.—*Detroit Free Press*, March 5, 1959.

EDITOR'S NOTE: Blue Cross insurance auditors and advisors about a year ago predicted the closing of the program in most of the provinces of Canada because of the nationalization of the program by the Federal Government, and its later adoption by the individual provinces. This news report shows progress.

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Pyridoxine HCl (B_6)	5 mg.
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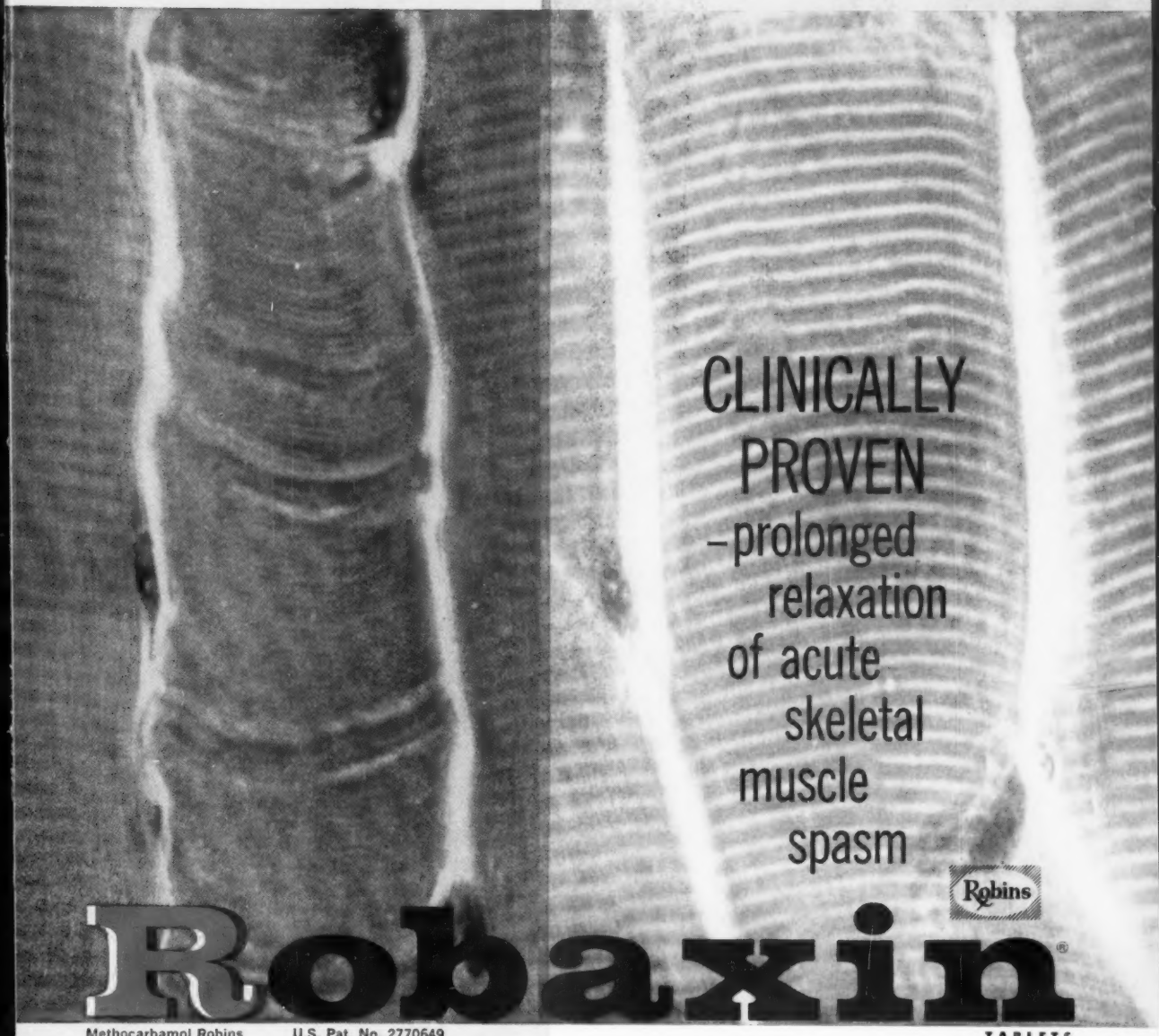

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	NO. PATIENTS	RESPONSE			
		"marked"	moderate	slight	none
Carpenter[1]	33	26	6	1	—
		"pronounced"			
Forsyth[2]	58	37	20	—	1
		"good"			
Lewis[3]	38	25	6	—	7
O'Doherty &		"excellent"			
Shields[4]	17	14	2	1	0
		"significant"			
Park[5]	30	27	—	2	1
		"gratifying"			
Plumb[6]	60	55	—	—	5
TOTALS	236	184 (78.0%)	34 (14.4%)	4	14

- **Highly potent—and long acting.**[1,2,3]
- **Relatively free of adverse side effects.**[1,2,3,5,6]
- **In ordinary dosage, does not reduce muscle strength or reflex activity.**[1]

REFERENCES: 1. Carpenter, E. B.: Southern M. J. 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Lewis, W. B.: California Med. 90:26, 1959. 4. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 5. Park, H. W.: J.A.M.A. 167:168, 1958. 6. Plumb, C. S.: Journal-Lancet 78:531, 1958.

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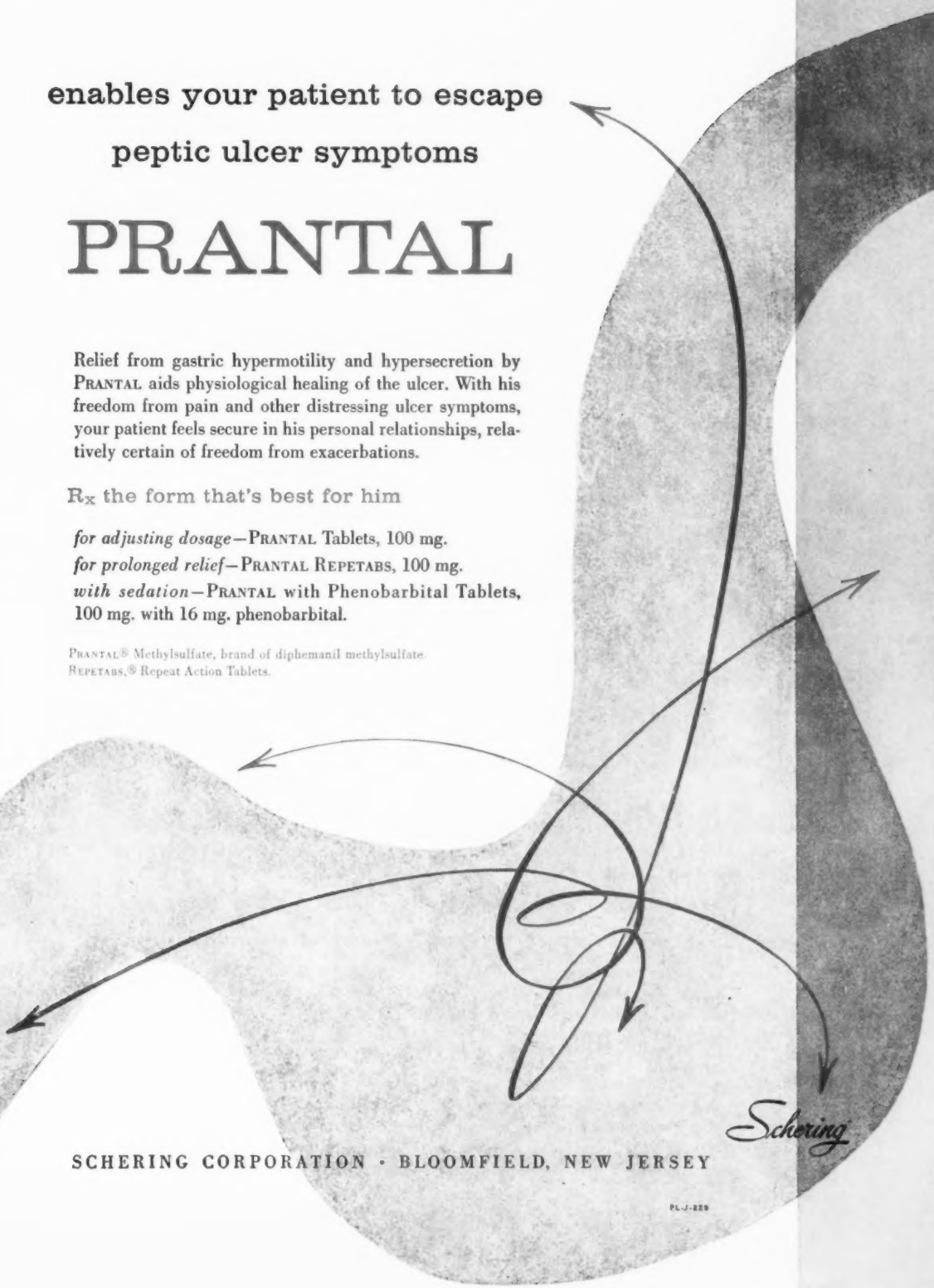

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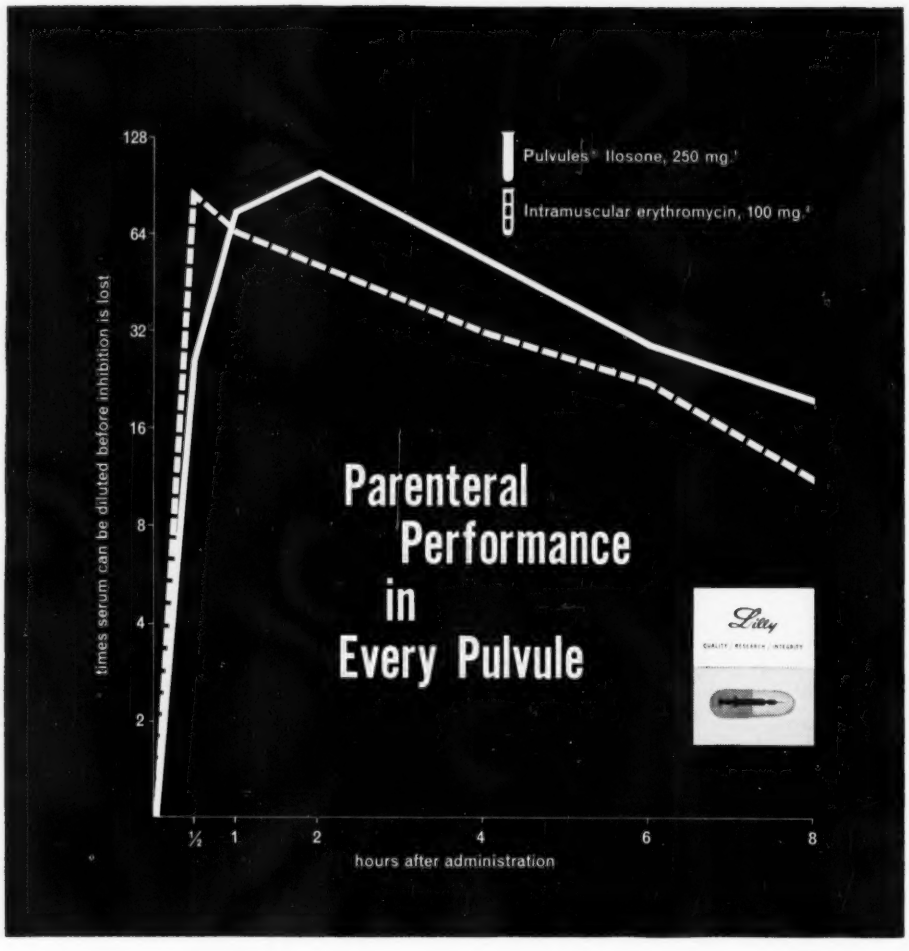

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1. Antibiotic Med. & Clin. Therapy, 5:609, 1958.
2. Data from Antibiotics Annual, p. 269. 1954-1955.

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Washtenaw County Medical Society

A Brief Account of Its Origin and Growth

By Frederick A. Coller, M.D., and
Richard A. Sinnott Jr., M.D.

Ann Arbor, Michigan

THE evolution of a medical society is governed by and reflects the state of scientific knowledge at any one time and also the social and economic environment in which it exists. During the formative years of this republic, medical societies came into being in response to a need for some type of regulatory agency to promote high standards of medical practice, to try to prevent the growth of quackery, and to foster medical education. It was at such a time, and for these reasons, that the Washtenaw County Medical Society was formed.

Michigan was created a territory on July 1, 1805, with the approval of Congress and of Thomas Jefferson. A small town, Detroit, was known to the world since a settlement had been started there in 1701, but the rest of the territory was still primitive forestland with but few inhabitants. A stable government was slowly being established when it was disrupted by that unhappy war called 1812. Michigan's population was small. In the great western migration that was settling the states to the south, Michigan was bypassed because of its comparative inaccessibility and the rumors of its sterile soil and scanty resources, issuing from the erroneous reports of the first official surveyors. Lewis Cass was appointed governor in 1813; realizing the needs of this wilderness when the war was over, he began the construction of roads that at first followed the ancient Indian trails, leading from Detroit to the West. "Walk in the Water," the first steamboat on the Great Lakes, began operation in 1818. Other ships, steam and sail, were ready to bring settlers when the Erie Canal was completed in 1825. In 1820 General Cass led an expedition around the Northwest Territory, making treaties with the Indians, observing the natural resources of the region, and mapping its geography. It was the act of a statesman, but served also as a gigantic real estate venture, securing the land from the Indians and later making known its charms and potentialities to prospective settlers.

The Territorial Medical Society

Even though this area was not on the main route of westward expansion, settlers were coming to the territory, and with them came a few doctors. These were a heterogeneous lot; some had had an education in medical school or with a preceptor, others were ignorant quacks and humbugs. On June 14, 1819, the governor and judges of the territory deemed it wise to pass an act to incorporate medical societies for the purpose of regulating the practice of Physic and Surgery in the Territory of Michigan. This act was adapted from the law regulating practice in New York and gave certain limited powers to the Territorial Society. These were the powers to charter county societies, to examine students desiring to study under preceptors, and to grant licenses to practice medicine within the Territory. Fines

could be set for transgressing the law, and court action could be denied to practitioners seeking to collect payments due from illegal practice. On June 23, 1820, there appeared in the Detroit *Gazette* the following notice:

> For the information of the public, you are requested to state in your paper, that in conformity to a law regulating the Practice of Physic and Surgery, and for other purposes, a Medical Society has been some time organized in the territory, which promises much future usefulness in prohibiting quackery, in this most important of all professions to the lives and health of our citizens.
>
> The following is a list of the officers and members of the "Medical Society of Michigan," to wit:
>
> Dr. William Brown, President
> Dr. Stephen C. Henry, Vice President
> Dr. John L. Whiting, Secretary
> Dr. Randall S. Rice, Treasurer
> Dr. Ebenezer Hurd
> Dr. William Thompson
> Dr. Henry Conant
>
> Doctors Hurd, Henry, and Rice are the censors, or Committee of examination for the current year.

The by-laws indicate clearly the functions, interests, and objectives of the Society. Diplomas from medical schools were usually accepted, but since the main means of securing medical education was apprenticeship, the act provided for a period of three years of study "with one or more reputable practitioners." The student was to be twenty-one years of age or over and of good moral character. Article 16 of the by-laws states that, "Any member who shall . . . pretend to know and practice with any nostrum may be reprehended or expelled by two-thirds of this Society at any meeting." Another provides for a pooling of knowledge: "Each member shall be expected to communicate annually what have been the prevailing diseases in the circuit of his practice during the preceding year and what mode of treatment has been most successful." In 1828 it was decided that members thereafter communicate their experiences in writing, to be entered on the record and placed in the archives. That some of these professional observations were fruitful is attested by a note in the minutes of January 8, 1828:

> Letter dated August, 1827, from Dr. William Beaumont of the U.S. Army, an honorary member of this society, accompanied by the report of an interesting case of wounded stomach which occurred in his practice, together with some experiments on the digestive powers of the stomach, was read.

Thus the Medical Society of Michigan was concerned with medical education, with examination and registration of practitioners, with public health, and with the exchange and diffusion of scientific knowledge.

Origin of the Washtenaw County Society

Washtenaw County was created by Governor Cass in 1820, but it was then so sparsely settled that such government as it needed was conducted from Detroit, the capital of the territory. In accordance with the Medical Act, branch societies were established as fast as counties were designated. Washtenaw County, the first branch to be designated, was chartered in 1827. Permission was granted Drs. Cyril Nichols, Rufus Pomeroy, William Kitteridge, and Daniel Low, to form the Washtenaw County Medical Society. We know nothing of their meetings or other activities until we read in *The Emigrant,* Vol. III, No. VI:

> Washtenaw County M. T. December 28, 1831—The Washtenaw County Medical Society will meet at Ann Arbor on the first Monday in January next at 10 o'clock a.m. S. Markham, Sec.

Nothing more is heard from the Society until there appeared a notice in the *Michigan Whig,* Vol. I, No. VII, Ann Arbor, Washtenaw County M. T. January 15, 1835:

> Medical Notice. An adjourned meeting of the Washtenaw Medical Society will be held at the House of E. Mundy on the 26th instant at 10 o'clock a.m. Those who wish to become Members of the Society, are requested to attend. If it is not convenient, to forward their credentials to some member of the Society previous to the meeting, a general attendance is requested and at as early an hour as possible as there will be business of importance to be transacted. Ann Arbor, January 6, 1835. A. Platt, Secretary.

One can probably safely assume that the Society held many meetings, but unfortunately we find as yet no record of them.

The growth of the Washtenaw County Medical Society was at first slow, halting, at times interrupted completely. Prominent among the forces impeding its progress were many medical cults that fought one another but united to oppose the regulars.

Conditions Influencing Medicine in the Territory of Michigan

One cannot appreciate the many difficulties that faced these pioneer physicians in their attempts to

bring order to their profession without examining the state of medical practice, knowledge, and education at that time. To amplify these points let us examine medical practice in general as it existed then, since it will also apply specifically to the local activities under discussion.

By 1800, there had been established in the United States five medical schools. They were supplementary to the apprentice system that had provided most of our physicians since the early days of the colonies. It was the rare student who had the means and opportunity to study abroad, but medicine, even at its best, had so little to offer at that time. Smallpox had been potentially conquered by Jenner through the publication in 1798 of his work on cowpox, but his concept had not been universally accepted. Other infectious diseases were common and were killers. In the United States the teachings of Benjamin Rush were popular—they were emphatic, didactic, and authoritative. His system of treatment was simple; the results were quickly obtained and readily observed. He "bled, purged, and puked 'em," and while his disciples were loyal and many in number, the results of this treatment left much to be desired.

After 1800, numerous medical schools were established in the course of the population migration to the west. A few of the schools survived, but most of them were short-lived. Surgery was at its simplest stage, consisting of the care of wounds, injuries, and infections. The occasional genius like Ephraim McDowell and Nathan Smith removed ovarian cysts, and cut for stones.

Most of the early licentiates of the Medical Society of Michigan came from the same area as did the settlers—that is, from New York State and New England. Diplomas were presented to the Medical Society from the Medical College of Vermont, the University of Pennsylvania, University of Vermont, Medical College of Burlington, Vermont, Fairfield Medical College, Castleton Medical College, College of Rhode Island, College of Physicians and Surgeons, Western District of New York, Yale University and others. Many of these schools soon closed their doors.

Regular medicines were so unpleasant and so ineffective against most diseases that one cannot wonder that cults were developed not only by quacks, but also by physicians dissatisfied with orthodox therapy. A cult was at least an experiment, and although it was not based on reason, it was a natural consequence of the failures and the disagreeable features of conventional practice.

Pioneers were, and had to be, hardy and self-dependent people, and doctors were considered a luxury, not a necessity. Many "doctor-books" with a variety of titles were popular in the settlers' cabins; the basic theme was "let every man be his own physician." In the *Michigan Herald*, September 20, 1825, appeared an editorial on the economic need of the region, concluding with the sentence, "Every industrious mechanic, who comes here from abroad, is a valuable acquisition and is of more immediate utility than a ship load of lawyers and doctors."

Many physicians acquired other means of support, such as a drug store, a lumber yard, a grocery store, or acted as agents for patent medicines to enlarge their income, which seems to indicate that the practice of medicine in itself was not particularly lucrative.

The difficulty of securing a physician in time of need, because of the lack of roads and the isolation of many homes, gave a tremendous impetus to the manufacture and sale of an infinite number of patent medicines. The National Patent Law, passed in 1790, proved for a time to be a bonanza for those with imperics and formulas for the treatment of disease.

As an example, Samuel Thomson, a farmer in New Hampshire who lacked sufficient education to become apprenticed to a doctor, adapted some ancient medical theories to his own purposes and created a system based on the use of botanic remedies and a vapor bath. In 1813 he had six of his remedies patented. These rights were sold to his disciples at a real consideration.

In support of Thomsonian doctrines, the *Botanic Luminary*, a monthly periodical, was established in Saline in 1836 by Hiram Wright, an ordained elder of the Baptist Church. Agents were appointed in the surrounding towns. Attempts made by them to form a state organization were not successful. A constitution was drawn up and a petition drafted for repeal of the "odius" medical laws of the state. The Thomsonian advocated that each medical society "regulate its own practice."

The botanico-medical movement received new impetus through the founding of another therapeutic cult, the Eclectic, by Wooster Beach, who had studied regular medicine in the University

of the State of New York. He disagreed heartily and vociferously with the principles of the regulars and based his new philosophy of treatment on a wide use of botanicals. His followers soon overshadowed the Thomsonians in popularity and zeal. The Eclectic Medical Institute was chartered in Cincinnati in 1845, and by 1893 there had been eighteen such schools incorporated, largely in the Middle West. For half a century or more their graduates practiced throughout the country, especially in midwestern states. Michigan had its share, although Ohio remained the stronghold.

Starting about this time, perhaps imitating the botanic therapy, were a large number of patent remedies from "vegetable" substances. One can have sympathy with those patients who chose to be treated by these botanic derivatives, most of which were not unpleasant, being tinctures having a strong base of alcohol. One of the authors (F.A.C.) recalls seeing, when he was very young, the walls of his grandfather's barn lined with stacked cases of empty bottles that had originally contained a widely-advertised vegetable compound. This gentleman was a deacon of the church, a stalwart for temperance, and he would have been shocked had he known that he was taking 90-proof liquor pleasantly flavored with vegetable compounds other than corn. Because of this—or perhaps because of his fine physique—he was hale and hearty until he was eighty-two years old. As a contrast with this happy medication we read in the autobiography of David Ward, a medical student who later became a lumber baron, that in 1840 he developed a pleurisy and was treated by Dr. Zina Pitcher, one of the leading citizens, educators, and physicians of Michigan, by "severe counter-irritation on the chest by means of Spanish fly blisters, tartar emetic irritations, setons to the right side and tartar emetic solutions taken internally three times daily." He survived, but with a painful convalescence.

From 1819 to 1830, the minutes and records of the Michigan Medical Society were carefully entered and the credentials of each candidate noted, but after that date interest waned. The meetings frequently were adjourned because a quorum was not present, and toward the end of its existence (1851) only names and dates of licensure were recorded. During the territorial period, about 200 physicians were licensed to practice by the parent body. The number licensed by the branch societies is not known, and insofar as one can determine, the Medical Society of Michigan fulfilled its duties in an admirable manner considering the vagueness of the objectives and the feeble powers accorded to it.

In 1823 the village of Ypsilanti originated, and in 1825 Ann Arbor was plotted by John Allen and John Rumsey. Dexter, Manchester, Milan, Chelsea, Lima Center, and other villages were started about that time. We get some interesting glimpses of medical practice in territorial days in Washtenaw County from announcements and advertisements in the newspapers, for example the *Emigrant*, Vol. II, No. XXI, Washtenaw County M. T. April 13, 1831:

> Surgery—The subscriber would inform the people of Washtenaw and neighboring counties, that he has procured a complete assortment of surgical instruments and preparations among which are amputating, trephining, obstetrics, and cupping instruments and improved splints of different kinds for fractures, electric machines, etc. etc., and is ready to attend to all calls in the surgical department of his profession, Ann Arbor, April 1, 1831, Samuel Denton.

Denton had graduated from Castleton Medical College, Vermont, in 1825. We know that he worked hard in his practice which became a large one, since we note in the *Michigan Whig*, Vol. I, No. 24, May 14, 1835, on page 1:

> Doctor Denton has removed his office to the Court House in the South Room on the East side of the hall. Those who call after bedtime, will please knock at the window if the door is fastened. April 2, 1835.

In 1850, he was Professor of Medicine and Pathology in the Department of Medicine and Surgery in the University of Michigan. In the *Michigan Whig*, Vol. I, No. II, February 12, 1835, we find a pithy notice of intent to practice that is so fair it could not offend:

> Dr. Curley—Late of Ontario County, New York, Office at O. Risdon's Hotel. If you have need, try him, if you like him, retain him—if not dismiss him. Saline, Washtenaw County, January, 1835.

Specialization in practice rears its head in a notice in the *Michigan Whig*—and *Washtenaw Democrat*, Vol. I, No. 38, August 29, 1835:

> Notice—Doctor Jefferies, thankful for past favors, would inform the citizens of this territory, that he has associated with him in his business, Doctor Cowles of New York. The undersigned having an excellent supply of Surgical Instruments, and as they trust, a good knowledge practical and experimental of their profession, flat-

ter themselves that they shall be able to give prompt successful and satisfactory attention to all calls with which they may be favored. Particular attention will be paid to the diseases of the EYE and EAR in all varieties. Office 2 doors East of Washtenaw House. C. A. Jefferies, M. H. Cowles, Ann Arbor, (upon Huron), July 17, 1835.

Today there are other methods of establishing a practice, but those men were not lacking in confidence and initiative, and one can only hope that their skills were equal to their promise.

Medicine in the New State of Michigan

In January, 1837, Michigan became a state with a population that had grown from 7,000 in 1820 to 174,467 in 1837. In 1838 the medical laws were altered by the legislature in a deplorable but understandable fashion. To meet the leveling desires of the lobby of quacks and cults, the standards of practice were dropped again. To quote from the presidential address of Dr. Leartus Connor to the Michigan State Medical Society in 1902, "as the people were in a frame of mind to be robbed, the quacks gathered to do the job in accord with the axiom where the carcasses lie there do the vultures gather." In 1846 another revision of the laws repealed that portion of it that restricted the right of unlicensed physicians to collect fees. Physicians from other states were admitted to practice without formality, thus for the first time inaugurating the era of "free trade" in medical practice. At this time the Supreme Court of Michigan rendered a remarkable decision in somewhat this meaning: as related by Dr. Zina Pitcher, a doctor is any person calling himself such. This meaning and intent effectively abolished the reason for the Michigan Medical Society, since examinations were unnecessary and standards were gone.

In the State legislature the selfish minority groups lobbying for cults, quacks, and patent medicines influenced for the moment the public and their representatives to destroy all safeguards of the character and education of those who practiced medicine.

One of the reasons for the failure of the state society as a regulatory agency was the encroachment upon its prerogatives by the various cults which also formed societies and claimed the right to grant licenses. The best explanation was offered by Dr. Zina Pitcher, a member of the Michigan Medical Society from 1835 and president in its last seven years: presenting a notice of the Territorial and State Medical Society in the *Peninsular Journal of Medicine*, I, May, 1854, he states in part:

> The history of this society furnishes one evidence of a general truth that the consent of the governed, in order to have any binding validity, must be an exposition of the popular sentiment, however erroneous that sentiment may be.

The Medical School of the University of Michigan was organized and opened to students in the autumn of 1850. Its small faculty, participating in the activities of the Society, inevitably had a strong influence on its character. The second stage of the evolution of the Washtenaw County Medical Society started with a meeting held in Ann Arbor, March 30, 1853, and ended in an adjourned meeting at the same place in 1860. The medical profession was on its own, its standards destroyed by legislative action. Its efforts to fight back were at that time stultified by a larger warfare that was in the offing. The country was torn by arguments, debates, soul-searching, and finally by Civil War. Michigan gave freely and generously of troops of the very highest quality and gallantry, while the physicians of the state went with them and cared for their sickness and their wounds.

Reincarnation of the Washtenaw County Society

However, at the end of the war the battle for medical standards was immediately renewed. The origin of the present Washtenaw County Medical Society is recorded in an old calf-bound book that reposes now in the Michigan Historical Collection. About the middle of June 1866, a call was issued for a convention to meet at the Medical College in Ann Arbor on Wednesday, June 27, at 9 a.m., for the purpose of organizing a medical society, by the physicians of Ypsilanti and Ann Arbor.

The convention was held at the time and place appointed, and members of the profession were present from Ann Arbor, Ypsilanti, Saline and York. The convention was organized by calling Dr. F. M. Oakley of York to the chair, and appointing Dr. H. S. Cheever of Ann Arbor as secretary. On motion, Drs. Palmer, Douglass, and Cheever were appointed as a committee to draft a constitution. These three men were members of the faculty of the Department of Medicine and Surgery of the University. After a lively and interesting discussion by Drs. Batewell, Doug-

lass, Palmer, Sager, Bobbitt, Breakey, and Prescott, and the proposal of some amendments, the constitution submitted by the committee was adopted. Appropriate by-laws were next adopted. The following officers were elected for the ensuing year:

President:	A. B. Palmer, M.D., Ann Arbor
Vice President:	E. Batewell, M.D., Ypsilanti
Secretary:	H. S. Cheever, M.D., Ann Arbor
Treasurer:	E. Ball, M.D., Saline
Censors:	A. Sager, M.D.; S. H. Douglass, M.D.; and William Hewitt, M.D.

It is fortunate that Dr. Henry Sylvester Cheever, was appointed secretary, for many reasons. His handwriting was perfect script, easily legible, and his ink was black and persists in its clarity until today. His notes make events clear until at the twenty-first regular meeting of the Washtenaw County Medical Society on Friday, June 30, 1871, he was elected president. After that the handwriting of the secretaries varied from fair to illegible; the ink they used varied in quality so that some sheets in the record are now blank.

The constitution followed the usual form. A few points in its bear comment. Anyone wishing to become a member had to be approved by the censors. As already mentioned, the territorial law that empowered censors to pass on the qualifications of those wishing to practice medicine had been abrogated by the legislative action. However, the examination for those applying for membership in the society was continued. This had no legal force but undoubtedly was a power for good since it maintained in the Society the high standards of conduct that the profession inherited from its past. The candidate had to receive a two-thirds vote of the society, and then sign the constitution and pay the treasurer the sum of one dollar. It was a dereliction of duty for any member to admit to his office as a student of medicine any person who did not first present a certificate of qualification as provided for in the constitution. In the light of our interest in standards of education, it is worthwhile to consider in detail article VI, Section 5, dealing with the duties of censors:

> It shall be the duty of the Censors to examine all applicants for membership in this Society and to report the results of such examination to the Society at its next regular meeting. It shall also be their duty to examine all persons applying for admission to the office of any member of the Society, as students of Medicine and to give certificates to only those that pass the following qualifications: A good moral character. A good English education including the art of composition, a respectable amount of English literature and the chief elements of algebra, geometry and natural philosophy, also a fair knowledge of the natural sciences of chemistry and such acquaintance with the ancient languages as will enable them to read current prescriptions and appreciate the technical language of the Natural Sciences and Medicine.

In Article IX it was stated that the Code of Ethics of the American Medical Association would be followed.

The by-laws clarified some points: "At every meeting of the Society the President may appoint two members to read original essays on some medical subject at the next succeeding meeting or at the annual meeting. However, any member may present such essays or remarks on topics of interest to the profession at regular meetings." A by-law to the effect that "an essayist failing to present or appear will be fined five dollars" was defeated. It was also stated that "no professional intercourse shall be had with any persons practicing medicine within the County of Washtenaw who is not a member of this Society." Also it was the duty of each member to keep a written record of all cases in his practice and report diseases that occur therein.

Finally, and importantly, By-Law XI stated: "It is the duty of members to maintain the dignity of the profession and to give information to the Society of any infringements of the Code of Ethics or of any misconduct of the members worthy of attention."

Ten members were a quorum. This was changed to six in 1878, not a cheery comment upon attendance over the years. In the first year of this society, that is, in 1866, nineteen members signed the book. Eleven were graduates of the University of Michigan; two of Castleton, Vermont; one, College of Physicians and Surgeons of Western New York; one, Jefferson Medical College; one, University of Vermont; one, Cleveland Medical College; one, London, England; and one Germany. From 1866 to 1868 there were at most thirty-five members, of whom one died, and eleven moved away, always to the west in search of greener pastures.

It is interesting that the educational qualifications set down for candidates for apprenticeship training in Article VI are nearly word for word

those expressed in resolution adopted by the American Medical Association during its organizational meeting in Philadelphia in 1847. It is also significant of the times that the Washtenaw County Medical Society in its constitution should set forth in some detail the qualifications necessary to those who wished to receive an education in medicine by the apprentice system in the office of a physician, when there had been for the past sixteen years a well-attended, popular, and then well-known medical school in Ann Arbor. Nearly half of the members of the Society were members of the faculty, yet nothing is said in the Constitution about formal medical education. In the absence of a state law governing practice, it seems clear that orthodox medicine in its national, state, and county societies made a determined effort to maintain and improve educational standards through example and inspiration arising from the medical profession rather than from the legislation that had thus far failed in this particular objective. It was a long battle between the desires of the profession to set high standards of health supervision, and the inertia and ignorance of the public and its representatives in the legislature who had for years little or no interest in such standards. Laws have lagged and even today lag behind the desires and advice of the medical profession to give the best of science to the care of the health of the people. There was a period of nearly sixty years in Michigan when the moral force exerted by the county and state medical societies was the only influence that opposed the quack and charlatan.

The second regular meeting of the Washtenaw County Medical Society was held on September 20, 1866, in the Medical Building in Ann Arbor, and a pattern of business was developed which was followed with various modifications for many years. The essayist was Dr. Batewell, who read a short paper on the duties of the physician in consultation. Essayists for the next meeting were appointed. Dr. Cheever as secretary reported the purchase of a calf-bound book—the book that happily has survived, in which are preserved the records of the activities of the Society until June 22, 1883. The second book, if one ever existed, has not been found.

The attendance at the meetings varied tremendously; at times there was barely a quorum, at other times—especially at the annual meeting—there was full attendance. The presentation of case histories was the backbone of the meeting; discussion was free, frank, and informative. It often amounted to a consultation, which it probably was designed to be. There were frequent discussions on matters that are now cared for by the health department, such as inspection of the County Poor House, water pollution, garbage disposal, and the reporting of contagious disease. There was occasionally much diversity of opinion concerning the diagnosis of a communicable disease.

An interesting activity was possible in this Society because of the special skills of some of the members. A program of analysis of popular patent medicines was carried out, largely by Drs. Rose, Douglass and Prescott. The patent and "ethical" proprietary remedies were the chief drugs prescribed during this period. Pharmacology was in its infancy, being nursed into rapid growth by the laboratory in the Medical School at Ann Arbor, the first laboratory devoted to this subject in this country. In it worked Abel, Cushing, Cheever, Edmunds, and other members of the Society.

In those years neither the county population nor the Society grew apace. The roster shows only three to five additions to the Society each year. The minutes of the meetings reflect the high interest and intellect of the members. The meetings were held in many places, as already mentioned. The medical building of the University was used occasionally—one wonders why not more often. The Cook Hotel and the Follett House were used; the Gregory House in Ann Arbor and the Hawkins House in Ypsilanti were favorites for a time. One meeting, at least, was held in the Council Chamber, another in a fire station, and another in the Opera House, representing a charming and economical use of public buildings. Most of the meetings, however, were held in the offices and homes of the members.

The wives of the members were usually invited to the annual meeting and occasionally to other meetings. Membership in the Society was at one time denied women physicians, although the denial was framed in most courteous language. At the eighteenth regular meeting, held in the Masonic Hall in Dexter in September, 1870, there was discussion concerning the admission of "lady applicants," but a decision was postponed. At the nineteenth regular meeting, in the Gregory House, Ann Arbor (no date), the cases of Mrs. Doctor Gerry and Miss Dr. Smith were reported

by the Board of Censors, and after much discussion, "only so much was adopted as gave them leave to withdraw their applications." It is interesting to note that something had to be discussed, since both appointed essayists for that meeting were absent.

Women students were admitted to the medical school in 1870. The innovation met with no loud cheers from the faculty, who opined that "in their judgment the medical co-education of the sexes is at best an experiment of doubtful utility, and one not calculated to increase the dignity of man nor the modesty of women." They did state, however, that the faculty was "willing to give a full course of medical instruction to females, at any convenient time, and for a suitable compensation." The profit motive won, but complete integration did not take place until 1881. It was not until 1903 that segregation in seating arrangements was abolished. Women were admitted to the Washtenaw County Medical Society after 1876.

During this long period, the roster of the Society reads like a "Who's Who in American Medicine"—both faculty and other county members were well known, not only in the state, but also in the nation. These men, the backbone of our heritage, whose names and achievements are so well known, need not be listed or commented upon here.

Medicine and Homeopathy in the County Society

The conflict between the regulars and the cults and the quacks was constant and at times bitter. The strongest of the cults now, Homeopathy, had begun to attempt to influence the legislature very early. The lawmakers were bombarded with petitions and personal views from 1851 until 1855, when the legislature passed an act providing for the appointment of at least one professor of Homeopathy in the Department of Medicine and Surgery. For the next twelve years a legal battle was waged to compel the Regents to comply with the act. Since we are concerned only with the local Society we need not go into the long, often bitter personal conflicts of the time. Suffice it to say that in April, 1875, the law was passed establishing a Homeopathic Medical College as part of the University of Michigan. This is a story and an episode in itself; however, it had its malign effect upon the Washtenaw County Medical Society. The faculty members who opposed Homeopathy were under fire from friend and foe, and others were severly criticised for allowing students of Homeopathy to sit in their classes. There were many martial encounters at the meetings of the County and State Medical Societies concerning these points, but as one reads them, one can only admire the forensic ability of the participants and wish that the scientific knowledge of all of them had been equal to their "powers of exposition."

This schism weakened the County Society. The University faculty, under bitter attack and primed for counterattack, started other local medical societies that were apparently disassociated from the parent society. From 1883 to 1903 we find no original minutes or records of the Washtenaw County Medical Society. We can still hope that the records of these years will eventually be found, perhaps in another calf-bound book now reposing in some attic. However, we have much information of the continued existence and programs of many meetings of the Society recorded in the local medical journals, in letters and public health directives. It was inevitable that the Homeopathy controversy, involving as it did two faculties of medicine with bitter criticism of both from several hostile groups of practitioners, would weaken the society. We read in the minutes of the thirty-seventh regular meeting, held in Ypsilanti in June, 1875, that a motion was made "to censure members of the Medical Faculty." The reason is not recorded, but happily the motion was tabled. It was undoubtedly another reflection of the two-school conflict.

Politics rather than reason had won for the moment, without, however, causing any great loss to the medical future of the state. The two schools went their ways, but over the years, in spite of hot words, cool counsel prevailed. The good sense of all involved and the growth of science in medicine finally brought on amalgamation of the schools in 1922—a happy ending to nearly sixty years of strife in medicine.

Although the other medical societies that were formed during this conflict did not completely abolish the County Society, they undoubtedly caused it to lose strength for the time being. The Ann Arbor Medical Club was organized about this time, its membership being largely recruited from the faculty of the regular Medical School, but some practitioners from other towns in the county were active members. The Ann Arbor Medical Club asked for recognition by the American Medical

Association, but was denied this at the meeting of the American Medical Association held in Buffalo, because of a protest from the Washtenaw County Medical Society. Later members of the University faculty were happy to make use of the attitude of the County Society, to urge the Regents to relieve the Department of Medicine and Surgery of some of the most obnoxious features of its pedagogical relationship with the Homeopathists. The relations between the Ann Arbor Medical Club and the County Society are not clear. That many physicians belonged to both is evident from notices that have survived in which it is stated "after this meeting of the Washtenaw County Medical Society there will be held a short meeting of the Ann Arbor Medical Club."

The Society and Medical Publications

A search of the volumes of several medical journals published in Ann Arbor and Detroit is interesting and fruitful, since in them was published from time to time the proceedings of the Washtenaw County Medical Society and also of the Ann Arbor Medical Club. Case histories and formal essays on philosophic and scientific subjects were presented, and these give an excellent concept of medical performance of their time which was, by and large, amazingly good.

These journals merit a careful study on their own, since they reflect the medical practice of their day. They indicate the zeal of our forebearers to advance and record medical knowledge, and they demonstrate that the medical profession, not only in Washtenaw County, but throughout Michigan, was of a very high standard. The journals were not officially sponsored by the Society, but they were edited by and contributed to by many members of the County Society. Since records of the County Society for this period have been lost the local journals are mentioned as giving, in part, their proceedings and also records of the activities of many of their meetings.

The *Peninsular Journal* was founded before the Civil War, about the time the County Society began consideration of its second beginning. The journal met with financial difficulties in 1875, was reorganized and started as a new series, but in the issue of December 1876 an editorial gave its obituary, "from this date it will be classed with the things which were but are not." It had previously been advertised as "the cheapest medical periodical in the West" ($3.00 per year). Perhaps this indicates the reason for failure. The *Michigan University Medical Journal*, conducted by the faculty of the Medical Department, was published in Ann Arbor, its first volume in 1870-71. It continued for three volumes, ending in 1873. In it appear reports of the meetings of the County Society. One reads with interest in Volume 1:

> The Michigan University Hospital is now in successful operation to supplement the University "Cliniques." It has a capacity of twenty beds and was inaugurated by the Regents a few months since. Patients are charged five dollars a day to include all expenses of board, medicines, and medical attendance.

Drs. Cheever and Gates reported that a patient with tracheotomy "lived twenty-three hours." The *Physician and Surgeon* was started in the eighties and continued publication until 1910. In this year a paper was given that "viewed the use of Salvarsan with pessimism." From this time on, other national medical publications and THE JOURNAL of the Michigan State Medical Society took over the scientific and publicity needs of the physicians of Michigan. We can be proud of the medical journals that had been initiated and carried on for sixty years largely by members of the County Society, since they reflect highly ethical and accurate reporting of the medicine of that time.

New Beginnings in the New Century

The County Society began to widen the scope of its programs, and we find that together with the Ann Arbor Medical Club and the medical faculty at the University, they occasionally invited speakers from outside the State. Dr. William J. Mayo, Dr. John B. Murphy, Dr. J. Peyton Rous, among others are mentioned.

The turn of the century is often used as a baseline in history. The beginning of the twentieth marked a great advance in medicine that was prophetic of a greater evolution to come. Basic medical science had made great strides, and the role of surgery had changed from an emphasis on the care of wounds to a most important part in therapy of the sick. These changes that strengthened regular medicine weakened the cults so that their influence in practice and in legislation became nominal. Medical practice was now controlled by laws that established standards of education and character.

This awakening affected organized medicine in a virile and important way. The presidential address of Dr. Leartus Connor, delivered at the

Michigan State Medical Society in 1902, was the trigger to greater changes. The Michigan State Medical Society was reorganized and strengthened. New county societies were formed. Councilors were appointed to visit and stimulate them. The older county societies were reorganized and brought into the new alignment. As part of this activity, the Washtenaw County Medical Society (the first of the county societies under the old plan) applied for a new charter from the State Medical Society on January 15, 1903. The application for this charter was signed by secretary of the County Society, Dr. Reuben R. Peterson. Under this new regime certain changes were made. The old Board of Censors was replaced by a Board of Directors. In that year a history of the County Society was written by Dr. William Breakey, presented to the Society and published in 1906 as part of a *History of Washtenaw County* edited by Samuel W. Beekes. During this time of change and reorganization we find that records of the Society were again kept and preserved. They contain a listing of the officers, directors and meetings. Meetings of the Society were held more frequently, an attempt being made to meet once a month. The meetings were still held in a peripatetic fashion in offices, public buildings, and hotels, and in hospitals and medical school amphitheaters.

The Society had 112 active and nine honorary members in 1910, with little change to 1920. This post-war period marked the consolidation of medicine in Washtenaw County. Private medical clubs and societies discontinued their meetings; the County Society became stronger and represented a unified profession. The many small private hospitals that had been operated by individual physicians in remodeled private houses were no longer needed, because of the growth of the University Hospital and the advent of St. Joseph Mercy Hospital in 1911. These two hospitals, with others in the county, care well for the needs of the people and of the profession.

The Washtenaw County Medical Society Today

The County Society has continually enlarged its functions and activities to meet the growth of population and medical sciences. Its many standing committees carry on a constant study of Society activities, not only in scientific progress, but perhaps more importantly, in fields of public relations and education. A Mediation Committee deals with all complaints and criticism leveled at the profession. The Ethics Committee cares for any difficulties in doctor-to-doctor relationships. Other committees work with Public Health units and with the State Society on problems concerning the health and welfare of the people.

The County Society takes an active part in graduate medical education for those young men and women taking graduate training in the hospitals of the county. These students are invited and urged to join the Society as associate members, so that they may learn of its ideals of practice and methods of procedure in relation to the public and to other health organizations. In 1950 there were 268 members of all classifications and in 1958 this has grown to a membership of 365, a reflection of an increased population, of an enlarging faculty and hospital staffs, but most importantly—a participation in graduate medical education.

The Washtenaw County Medical Society *Bulletin* No. I was issued in February 1924; subsequent issues are available in bound volumes from 1942 to date.

The Washtenaw County Medical Society has existed in some form for 131 years. In this time medicine has had its most thrilling growth. The first fifty years were sterile in science but marked by high ethics and hard efforts. In the next fifty years medical sciences were originating and developing, but still without a great influence upon the health of the nation. During the last thirty years miracles in medicine have happened that have changed the outlook of the world. It is a pity that our founding members could not be given a glimpse of the medicine of today.

Acknowledgment

We wish to express our thanks to the Michigan Historical Collection for courtesy and help in finding source material. We are indebted to Dr. Dell Henry and Mrs. Flora Mayer for making the Society records available to us. We also acknowledge our debt to "The Medical History of Michigan," edited by C. B. Burr and Committee, published by the Bruce Publishing Co., Minneapolis and Saint Paul, 1930.

We have consulted with pleasure and profit the article "The Doctor and the Newspaper in the Territory of Michigan, 1817-1837" by Fanny J. Anderson in the *Journal of the History of Medicine*, Vol. II, 1947, which gives a vivid picture of medical practice in territorial days.

Finally, we thank Mrs. Ruth Good for invaluable help in organizing our material in the form in which it is presented.

Ventriculo-Venous Shunt Using the Holter Valve as a Treatment of Hydrocephalus

By Kenneth W. Carrington, M.D.
Ann Arbor, Michigan

HYDROCEPHALUS has been a problem facing physicians for as long as medicine has been practiced. The seriousness and complexity of the problem are borne out in the number of procedures advocated in its treatment.

Renewed interest in the problem has occurred in the last ten years, thanks to the availability of various plastic materials. In this period, the Matson[6] procedure, or subarachnoid-ureterostomy, was a step forward in the treatment of this disease. This procedure, however, has definite disadvantages which have led to further investigation of methods of treatment.

For the last one and a half years, most of the cases of hydrocephalus seen at the University of Michigan Medical Center have been treated by means of a ventriculo-venous shunt utilizing the Holter valve. Shunting the cerebrospinal fluid from the lateral ventricle of the brain to the right auricle of the heart by way of the internal jugular vein is effected. The Holter valve is employed and is designed to prevent backflow of blood into the ventricle.

This is a report of the first fifty cases treated on the Neurosurgical Service. This procedure has been outlined, advocated, and was first used by Dr. Eugene Spitz[13] of the Children's Hospital of Philadelphia, and Dr. Frank Nulsen, of the Western Reserve University Medical School and University Hospitals of Cleveland.

History

Most physicians will agree the best method of treating any disease is the one which least disturbs the normal body processes. As early as 1895, Gärtner[2,5] suggested that the most physiologic treatment would be the establishment of a connection between the ventricular system and the venous or lymphatic system of the head or neck.

Payr[9] in 1908, reported three ventriculo-venous anastomoses. The lateral ventricle was anastomosed to the superior sagittal sinus utilizing a free segment of vein. There was no reflux of blood into the ventricle but all patients died within four months of the procedure. Later Payr[10] reported the connection of the lateral ventricle with the internal jugular vein. Three of eight patients had excellent results.

Following this Enderlen,[1] Kanavel,[4] and McClure[7] reported attempts at various anastomoses, all of which had only fair to poor results.

Enthusiasm for such procedures was extremely low prior to World War II.

Ingraham[3] et al., in 1948, reported the use of polyethylene tubing to anastomose the enlarged lateral ventricle of dogs to the superior sagittal sinus. Re-exploration at various intervals up to seven weeks postoperatively revealed that blood had refluxed into the tube and clotted. They also attempted to shunt the fluid into the superior vena cava, facial, external maxillary, and external jugular veins, which were equally unsuccessful due to blood refluxing into the tube and clotting. These authors concluded, "Unless an extremely sensitive but completely competent artificial valve can be devised and introduced between the cerebrospinal fluid pathways and the venous system in such a fashion as to permit only unidirectional flow of fluid, no matter what the relative hydrostatic pressure may be, all attempts to achieve ventricular decompression by ventriculo-venous shunts will fail and should not be submitted to clinical trials."

The first reported use of such a valve was that of Nulsen and Spitz.[8] They reported the insertion of a rubber "subcutaneous pump" connecting two ball valves. This connected the lateral ventricle and the internal jugular vein. The case described was operated upon in 1949 and the shunt was functioning well at the time of their initial report in 1952.

Pudenz,[12] et al., reported the use of a ventriculo-auriculostomy utilizing either a "slit and core valve" or "sleeve valve." This, unlike the shunt devised by Nulsen and Spitz, had the valve

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located distally within the right auricle. They reported successful control of hydrocephalus with this type of procedure.

For approximately the last three years, Drs. Spitz and Nulsen have been successfully utilizing a valve designed by Mr. John Holter. Their results have not been published at this time, but certainly appear to be encouraging.[13]

We have treated some fifty hydrocephalic patients with the Holter valve over an eighteen-month period. Twelve of these patients were operated upon at the Coldwater State Home through the co-operation of Drs. E. J. Rennell and J. C. Heffelfinger, the remainder at the University Hospital. The technique used is modified only slightly from that suggested by Spitz.[13]

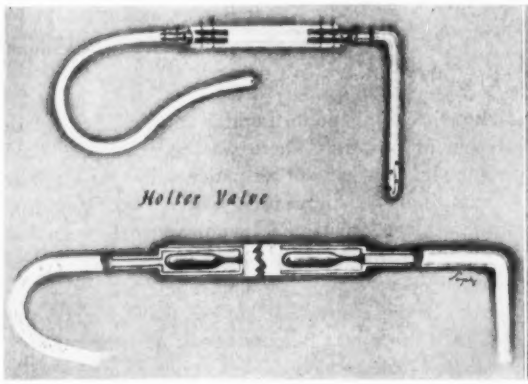

Fig. 1. (*above*) Holter valve shown with attached distal and proximal catheters. (*below*) Schematic representation of inner mechanics of Holter valve.

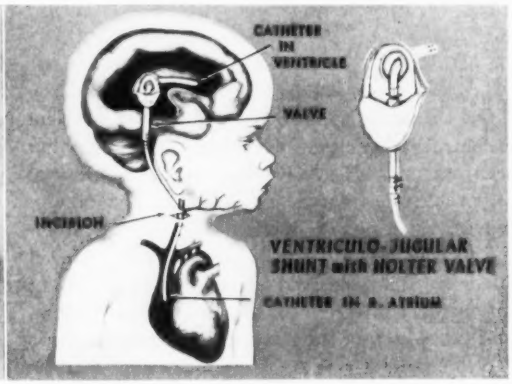

Fig. 2. Over-all scheme of the shunt's location. The insert shows the proximal catheter's position.

Materials

The Holter valve consists of a pair of "fish-mouth" type valves connected by a siliconized-rubber cylinder (Fig. 1). This mechanism measures approximately 5 cm. in length, and 6 mm. in diameter. The cylinder can be shortened, if desired, for very small children. The valves allow only unidirectional flow of fluid and are regulated at the time of manufacture to open at pressures greater than either 10 mm. or 50 mm. of water. The low opening pressure valves (10 mm.) were used in children with myelomeningoceles and in patients with very pliable heads. This allowed marked collapse of these abnormal structures with little risk of the production of subdural hematomas. The high pressure valves (50 mm.) were used on all other patients. The valve is placed between two catheters (Fig. 1).

The proximal catheter, the one to be placed in the lateral ventricle, is made of siliconized rubber impregnated with 5 per cent barium solution.

This tube is preformed at a right angle so that its lumen is not encroached upon at its exit from the skull.

The distal catheter is of siliconized rubber with 5 per cent barium impregnation. Siliconized rubber is a material of very low tissue reactivity and has the advantage over polyethylene of being elastic and also very pliable. Impregnation of these tubes with barium makes them radio-opaque. The use of this material in the cylinder between the valves proves to be of great advantage in that the system can be pumped manually through the intact scalp, which gives an indication as to whether the valve is functioning correctly.

Diagnosis and Technique

The diagnosis of hydrocephalus is one which is not usually difficult to make on clinical grounds, or to substantiate by ventricular air studies. The clinical diagnosis is made by the abnormally rapid rate of head growth and the various other physical characteristics, such as venous engorgement of the superficial scalp veins, "sunset" eyes, and a bulging anterior fontanel.

In order to substantiate the diagnosis, it has been our practice to do small ventricular air studies or "bubble" studies on most cases of suspected hydro-

cephalus. By doing this study the presence of a tumor causing the patient's ventricular enlargement is excluded. Subdural hematoma[11] in infants is a lesion which also must be ruled out as it mimics the signs and symptoms of hydrocephalus.

Once the diagnosis of hydrocephalus is confirmed, a ventriculo-venous shunt cannot be carried out until the air has been absorbed from the ventricular system. Air embolism might result from the transference of air from the ventricle into the right auricle. The insertion of the valve is carried out under general anesthesia.

valve is anchored to the skull by means of a single suture of stainless steel wire. The distal catheter is anchored loosely within the internal jugular vein by means of silk sutures.

The exact position of both the proximal and distal catheters can be checked by postoperative skull and chest x-rays, respectively (Fig. 4). Any change of the distal catheter with growth of the child is then easily measured.

The shunts were considered as functioning if the child's head stopped enlarging at an abnormal rate, and the anterior fontanel became depressed.

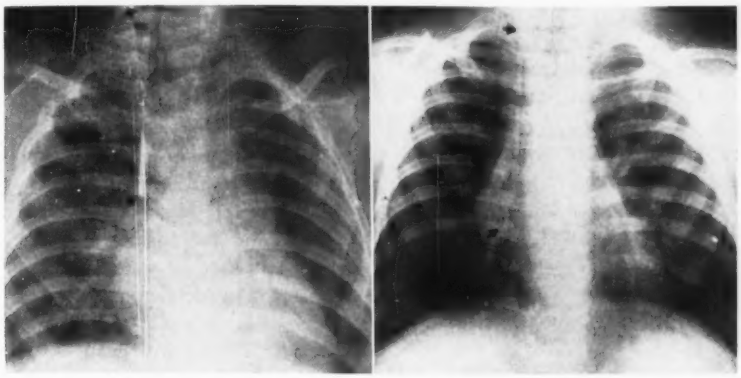

Fig. 3. (*left*) Chest x-ray taken in the operating room. Test catheter with radio-opaque tip used to determine exact tube length required to reach right auricle.
Fig. 4. (*right*) Postoperative chest x-ray showing position of distal catheter.

The valve with attached proximal right angled catheter and straight distal catheter is placed in a subcutaneous pathway behind the right ear.

The right side of the head and neck is the usual site of this shunt in that there is a more direct connection through the right internal jugular vein to the right auricle. The scheme of the valve's insertion is depicted in Figure 2.

The right angle catheter is inserted into the ventricle through a trephine in the parietal region. Great care is taken to be certain that the distal catheter is either within the right auricle, or at the superior vena caval-auricular junction. This can be done at the time of the distal catheter's insertion by the injection of radio-opaque material into the tube, or by placing a radio-opaque tip on a test catheter and taking a chest x-ray in the operating room (Fig. 3). From this measurement, an accurate determination of the tube length required to reach the auricle is obtained. If the tube does not reach the superior vena cava, thrombosis of the internal jugular vein will result. The

In patients with closed fontanels there was a decrease in pressure symptoms (headache, vomiting, and papilledema). By pumping the cylinder between the valves, through the intact scalp, the valve can be tested. The cylinder should collapse with pressure and then quickly fill again. If it will not collapse a block is suspected in the distal catheter. If the cylinder collapses and fails to fill a block in the proximal catheter is probable.

Results

This is an analysis of fifty ventriculo-venous shunts carried out on the Neurosurgical Service of the University of Michigan Medical Center. The patients ranged in age from eight days to twelve years. All patients have been followed from two to eighteen months postoperatively.

As of this writing, forty-three patients have functioning shunts, or a success rate of 86 per cent. In order to accomplish this, some sixty operative procedures were required. The ten revisions necessary were in eight different patients.

Internal jugular thrombosis, or a plug in the distal catheter, was the reason for failure of the procedure in eight cases. In the remaining two, a plug was present in the proximal catheter. In none of the revisions was there any abnormality noted in the valve mechanism.

The seven patients in whom the valves are no longer functioning can be divided into three groups. The first group consists of three patients in whom the valve functioned, but the patients expired presumably from their disease rather than from the operative procedure. One had platybasia and associated hydrocephalus; another agenesis of the cerebellum; and a third showed cerebral agenesis at autopsy. In the second group is one patient who developed an obstruction of the proximal catheter and the valve was removed at another institution.

The third group consists of the remaining three cases. All of these had myelomeningoceles with associated hydrocephalus. Postoperatively the patient developed meningitis and septicemia. The source of infection was not definitely proven, but these cases must be considered as operative deaths, despite the occurrence of the infection from one to three months postoperatively. Including these cases, the over-all operative mortality was 6 per cent.

Ten patients had myelomeningoceles with hydrocephalus. In seven there was marked collapse of the myelomeningocele after the shunt. The three that failed to collapse were the three children who expired secondary to meningitis and septicemia. In all cases in which there was collapse of the myelomeningocele, there was increased thickness of the covering epithelium.

In evaluating the benefit of the shunt, for the patients, it was found that thirty-four patients of the fifty operated upon showed improvement following the procedure. The remaining cases have shown no demonstrable change. On review of the ventriculograms it is seen that it is difficult, if not impossible, to predict the absolute potential of the children from the thickness of the cortex, as demonstrated by air study.

The production of subdural hematoma, secondary to rapid decompression of the ventricle, was not encountered in any of the patients in this series.

Discussion

The ventriculo-venous shunt with the Holter valve is an attempt to return excess cerebrospinal fluid to the blood stream. The advantages of this procedure as compared to other available methods are: (a) preservation of the cerebrospinal fluid by returning it to the blood stream without loss of electrolytes, (b) no necessity to sacrifice any organ to carry out the procedure (as removal of the kidney in the Matson procedure), (c) little chance of ascending infection through the tube with resulting meningitis as the distal tube is in a sterile area, (d) no alteration in the technique is required in the treatment of either communicating or obstructive hydrocephalus.

Since the Holter valve has been used for but three years there remains concern for the effect of growth on the position of the distal catheter. Pudenz, et al,[12] reported that the growth in children from the mastoid to xiphoid was only 6 cm. in the first five years of life. If the distal tube is placed in the right auricle there will be some excess present allowing for future growth of the child. The catheters being made of an elastic material also allows for further growth. It is extremely important that the distal catheter be at the superior vena caval-auricular junction or within the atrium. If the catheter is placed only in the internal jugular vein, thrombosis will occur and the shunt will fail.

After reviewing our results to date and considering the advantages stated above, it is believed that this type of shunt is probably the best available for all types of hydrocephalus. From these data, it is thought that most cases of hydrocephalus should be shunted. As noted previously, there appears to be no direct relationship between the cortical thickness and the results obtained from the shunt.

If the shunt is a failure with regard to mental and physical improvement of the patient, it may reduce to some degree the subsequent nursing care of the patient.

The results suggest that the patients with myelomeningoceles should be shunted as soon as pressure symptoms appear. If the shunt is used, the pressure may be relieved from the myelomeningocele sac and further epithelization is possible. Surgical care of this lesion may then even be avoided.

Summary

1. Fifty cases having ventriculo-venous shunts are reported. Follow-up periods ranged from two to eighteen months with 86 per cent functioning well.

(Continued on Page 383)

Experience with Diverticulitis Over a Ten-Year Period

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A STUDY of 531 patients discharged with the diagnosis of diverticulosis between December 1947 and December 1957 is presented with a critical analysis of diagnostic and prognostic evaluation. Of this group, only 183 had symptoms which in any way could be associated with diverticular disease of the colon. Of this symptomatic group, thirty-seven had vague abdominal distress of the type associated with spastic or irritable colon and radiologic evidence of diverticulosis of the colon. In sixty-nine instances there was positive correlation between the clinical and x-ray evidence of diverticulitis and in twenty-three instances, clinical evidence of diverticulitis with x-ray evidence of diverticulosis only.

The criteria for establishing a clinical diagnosis consisted of: symptoms of pain (usually in the left lower quadrant), tenderness over the same area, mild leukocytosis and fever of slight degree (100° F.). Radiologic evidence consisted of demonstration of diverticula in the colon, tenderness, spasm and/or filling defect and frequently a "saw-tooth" appearance of the involved colon. In thirty-three cases, a diagnosis of diverticulitis was made by the radiologist in the absence of typical signs or symptoms of the disease. There were ten cases recognized on the basis of clinical evidence, alone, with no positive radiologic findings and an additional eleven cases demonstrating diverticulitis at the time of surgical exploration not previously suspected.

Of the entire group of 146 patients with diverticulutis thus assembled, eighty-eight were treated medically and fifty-eight by a variety of surgical procedures. Medical management fairly uniformly consisted of a bland diet, antibiotics or chemotherapeutic agents, bed rest and, when indicated by blood loss, transfusions.

The fifty-eight patients on whom surgery was performed include eleven diagnostic errors. The remainder were considered to have some complication not responsive to medical management or with the distinct possibility that the colonic lesion represented a neoplasm and not an inflammatory disease. Only one patient died in the immediate postoperative period and he of peritonitis and pneumonia.

TABLE I. DIAGNOSTIC EVALUATION OF 183 CASES OF CLINICAL DIVERTICULITIS

Diagnosis Established by:	*Number*
1. Clinical and Radiologic Evidence Correlated	69
2. Clinical Evidence with Radiologic Evidence of Diverticulosis	23
3. Radiologic Evidence Present in Absence of Clinical Evidence	33
4. Clinical Evidence Alone with No Positive Radiologic Findings	10
5. Demonstrated at Operation, Not Previously Suspected	11
6. Vague Clinical Symptoms with Radiologic Evidence of Diverticulosis	37
Total	183

The type of surgery performed is indicated on Table II. In general, a three-stage operative procedure was preferred with initial colostomy and later resection of the diseased bowel with end-to-end anastomosis and final closure of the colostomy.

TABLE II. TYPES OF OPERATION ON PATIENTS WITH DIVERTICULITIS

Diagnostic	
Appendectomy	5
Laparotomy with Biopsy	1
Incidental	
Rectal Prolapse	1
Therapeutic	
Subtotal Gastric Resection	1
3-Stage Colonic Resection	20
Primary Resection with Re-Anastomosis	15
Complimentary Cecostomy and Resection	7
Colostomy and Resection with Secondary Closure of Colostomy	4
Transverse Colostomy Only	3
Cholecystectomy	1
	58

Utilizing proper preparation with antibiotics and sufficient localization and subsidence of the acute inflammatory disease, the surgeons accomplished colonic resection with anastomosis in only one

From the St. Joseph Mercy Hospital, Ann Arbor, Michigan.

stage. In all instances, surgery was done for recurrent severe diverticulitis, perforation of the bowel or colonic narrowing, filling defect and obstructive symptoms, suspected cancer, fistula formation or hemorrhage. There is concurrence of opinion expressed by Catell,[2] Bacon,[1] Colcock,[3] and Welch[25] regarding the indications for surgical intervention.

In eleven instances surgical exploration was done with erroneous preoperative diagnoses. Six were suspected to have acute appendicitis and five to have a gynecologic disorder involving ovary, tube or uterus. In the six suspected appendicitis cases, pain and tenderness were localized to the right lower quadrant in four but was present in both lower quadrants in two of the patients. No barium enema examinations were done preoperatively. The degree of fever, leukocytosis or change in bowel habits was not considered helpful in differentiation even in retrospect; however, in one instance, rectal bleeding might have alerted the surgeon to another consideration and led to an x-ray examination of the colon. At the time of exploration, diverticulitis was found to involve the cecum and ascending colon in four cases and the sigmoid colon in two cases. Bilateral lower quadrant pain occurred in both of the latter patients. The bleeding episode occurred in diverticulitis of the cecum. In a series of 200 cases presented by LeRoyer[11] in 1948, fifteen were mistakenly operated on as acute appendicitis and seventeen with such diagnoses as pelvic inflammatory disease, acute cholecystitis, intestinal obstruction and ruptured ovarian cyst.

In considering the five errors found in supposed gynecologic disorders in our series, four were thought to be ovarian neoplasm and one a torsion of an ovarian cyst. In each instance, diverticulitis of the sigmoid colon was found at surgical exploration. In four of these no barium enema had been done. In one pre-operative barium enema the radiologist failed to report several small diverticula (seen in retrospect) in the lateral wall of the sigmoid colon. Again, LeRoyer[11] reported that in the thirty-two erroneous diagnoses in their series none had had a barium enema examination.

It has been observed repeatedly that cancer of the colon and diverticulitis involve primarily the same area—the sigmoid colon—but that the concomitant appearance of both lesions is purely coincidental. (Rowe,[18] Ransom,[19] Smith,[22] Morton,[13] and Mayo.[12]) The differential diagnosis of cancer and diverticulitis has always been a vexing problem and one which has led repeatedly to the observation that surgical resection is mandatory when there is doubt of the inflammatory nature of the disease. After reviewing sixty-nine cases of coexisting carcinoma and diverticulitis of the colon, Rowe[21] concluded that symptomatology was of little value in differentiation but that evidence of inflammation, palpable mass and fistula formation occur more frequently in diverticulitis while obstruction, anemia and cachexia are more suggestive of cancer.

In our own observation there were six cases of complete bowel obstruction with diverticulitis. In two of these, cancer involved the same bowel segment. In twenty-one cases demonstrating narrowing of the colon or filling defect due to diverticulitis, four were seen to have cancer in the same surgical specimen. In one instance recognized as diverticulosis only by radiologic examination, the patient died of carcinomatosis and at postmortem examination, a primary neoplasm of the sigmoid colon was demonstrated. Sigmoidoscopy was not performed but the disease was very extensive when the patient was first observed and diagnosis had been established before death by peritonoscopy and liver biopsy. One patient had diverticulosis, a vesico-colic fistula and, at surgical exploration, a carcinoma of the colon with no evidence of diverticulitis. In one case of recto-vaginal fistula with diverticulitis, the patient was demonstrated at autopsy to have carcinoma of the colon as well. A total of nine cases of colonic neoplasm found in 146 cases of diverticulitis or in fifty-eight surgical patients. This compares closely with Ransom's[19] figures of seven carcinomas occurring in fifty-three patients with diverticulitis who were resected. Morton[13] reports only eighteen co-existent lesions in twenty years of experience at the University of Rochester. Oren[16] reported co-existence of carcinoma and diverticulitis in two of 102 cases of diverticulosis; Fallon[6] found only three cancers in 625 cases of diverticulitis and Rankin[18] and Brown found cancer in only four among 227 cases of diverticulitis. Others have had similar experiences with infrequent association of the lesions.

It must be recorded that on three occasions a preoperative diagnosis of diverticulitis was changed to cancer of the colon on pathologic examination at which time no evidence of diverticular disease was present. These three patients have been excluded in making the tabulation.

Incidence of Bleeding

There has been a lively debate occurring in surgical literature for several years regarding the frequency of bleeding in diverticulosis, in diverticulitis and in co-existent cancer and diverticulitis. The weight of evidence, manuscript-wise, would indicate a gradual acceptance of the thesis that significant, even severe, bleeding is a fairly common manifestation of diverticulitis.

There is repeated reference to massive bleeding from the large bowel when diverticulosis has been the only demonstrable lesion. Noer[15] demonstrated the intense vascularity of the colonic diverticulae by vascular injection studies of anatomic specimens and presented sixty-eight cases of diverticulitis and diverticulosis in which twenty exhibited rectal bleeding. Stanton[23] reported 131 admissions for diverticulitis and diverticulosis in which thirty-seven had gross rectal bleeding. These included fourteen cases (10 per cent) of "massive rectal hemorrhage" none of which required surgery but did require from 500 cc. to 2,500 cc. of whole blood transfusions. Rosser[21] recites his personal experience with significant rectal bleeding in 30 per cent of forty cases of diverticulitis. Quinn[17] and Ochsner found rectal bleeding to be the most frequent complication requiring admission to Charity Hospital for diverticulitis and diverticulosis (48 per cent of admissions). Rankin[18] expresses the view that rectal bleeding is not commonly found in diverticulitis and advises investigation for an associated malignant lesion when it occurs. DeCosse,[5] reporting on the rectal bleeding in twelve of forty-three cases of diverticulitis, found polypoid disease of the colon in six and concluded that bleeding was not frequently attributed to diverticulitis. Hoar[9] reports bleeding in 37 per cent of 111 cases of diverticulitis and 16 per cent of 236 cases of diverticulosis. Jensen,[10] Cote,[4] and Goodwin[7] add evidence that bleeding occurs in diverticulosis alone.

In our series of cases, rectal bleeding due to diverticulitis and diverticulosis occurred in forty-one of the 531 cases (8 per cent of the total or 22 per cent of the 183 symptomatic cases). Of this total, thirty-one were considered minimal or moderate as judged by visible blood in mucoid discharge, or recurring blood in or on the stools. Ten cases were classified as severe bleeding when the following criteria were present: sudden onset of gross amounts of blood in the stool or continuous bloody rectal discharge, associated symptoms of faintness or dizziness, tenesmus and passage of bloody clots and an initial hemoglobin of 10 gm. or below.

Of the thirty-one cases of bleeding classified as minimal or moderate, ten were due to diverticulosis and twenty-one to diverticulitis. Conversely, in ten cases of severe bleeding, diverticulosis was present in seven and diverticulitis in only three. The average age of the patients with severe bleeding was seventy-four years.

Ranson[19] has stated that gross rectal bleeding should alert the clinician to the presence of carcinoma in colons demonstrating diverticulitis. In five of seven cases he describes this observation is confirmed. In our own experience, however, only minimal rectal bleeding occurred in three of our nine cases in which cancer co-existed with diverticulitis. One patient, seen initially with severe bleeding apparently due to diverticulosis alone, developed obvious carcinoma of the colon one year later.

It is well to emphasize again the experience of others in the management of severe rectal bleeding in diverticulitis and diverticulosis. Noer's[15] twenty patients who exhibited rectal bleeding were divided into a surgical group of six: three were operated upon as emergencies and died: three underwent elective colonic resection and recovered. Of the fourteen patients without operation, two died, one of intestinal obstruction and one of an undiagnosed diverticular perforation which was shown at autopsy. The other twelve lived. Contrast this experience with Stanton's[23] fourteen cases of massive rectal bleeding treated conservatively with blood transfusions and no surgery. There were no deaths from bleeding although 500 cc. to 2,500 cc. of whole blood transfusions were required in each instance. Hoar's[9] recommendation for early surgery in massive hemorrhage from diverticulitis seems odd when considered with his four reported cases so treated, three patients died and only one lived.

Our own experience would urge conservatism in cases of massive rectal bleeding. Bed rest, antispasmodic drugs and blood transfusions controlled seven of the ten cases of severe bleeding with no later recurrence. The only postoperative death in the entire series occurred in hemorrhage from diverticulitis in a patient on whom an emergency colectomy was performed. He died of peritonitis and pneumonia postoperatively. A second patient had an empiric gastric resection when the rectal

bleeding was not recognized as arising in the colon and in the third, a surgical resection of the sigmoid colon successfully controlled the hemorrhage from the bowel. In one surgical patient diverticulosis alone was demonstrated radiographically; in the other two, sigmoid diverticulitis was present.

TABLE III. COMPLICATIONS OF DIVERTICULOSIS IN 183 CASES

I. *Suppurative Complications*	
A. *Perforation*	19
1. Abscess formation ..9 (one with carcinoma of colon)	
2. Peritonitis 6	
3. Fistula formation ..4	
a. Recto-vaginal ..... 2 (one with carcinoma of colon)	
b. Vesico-colic ..... 1 (with carcinoma of colon)	
c. Sigmoid-cutaneous 1	
B. *Recurrent Severe Diverticulitis*	7
II. *Mechanical*	
A. *Hemorrhage, Severe*... (one with carcinoma of colon)	10
B. *Obstruction*	27
1. Complete ..... 6 (two with carcinoma of colon)	
2. Filling defect and narrowing of colon ..21 (four with carcinoma of colon)	
C. *Rectal Prolapse*	1
	64
	35% of 183

Incidence of Complications

As seen in Table III the over-all incidence of complications in this series of 183 cases of diverticular disease is 35 per cent. We have included recurrent severe diverticulitis as a complication because it usually led to surgical resection of the involved bowel segment. In several instances multiple complications (abscess formation and perforation, constricting lesion and hemorrhage) were present in the same patient.

LeRoyer,[11] in reviewing 200 cases of diverticulitis from 1927 until 1946 reports complications in 25 per cent. Forty-three of the complications were bowel perforations with various suppurative consequences and only seven were mechanical obstructions due to local inflammation. In the present series, suppurative complications of bowel perforation account for only nineteen cases while mechanical obstruction occurred in twenty-seven cases. This is a reflection of the deliberate selection of the antibiotic era for reporting this group of diverticulitis patients. The low mortality is also due to the same factor. Four deaths in the series were due to carcinomatosis and the fifth due to postoperative generalized peritonitis and pneumonia.

It is in these obstructive and suppurative complications of diverticulitis that surgery is indicated. Rectal hemorrhage due to diverticular disease is not in itself an indication for surgical intervention. It is important to recognize that six of the nine cases of concomitant carcinoma and diverticulitis of the bowel occurred in the group identified as mechanical obstruction.

Surgery was done on fifty-eight patients in this group of 183 cases. The type of surgery is indicated in Table IV.

Radiologic Findings

Radiographic examination of the colon is the most accurate single diagnostic agent in either diverticulosis or diverticulitis but in four cases a clinical diagnosis of diverticulitis was possible when barium enema examination was entirely negative. In an effort to determine the frequency of radiographic errors, a further evaluation demonstrated that in three instances clearly outlined diverticulae on initial barium enema examination were not visible on subsequent radiologic examination of colon three months, five months and eighteen

TABLE IV. FOLLOW-UP STUDY OF 183 CASES OF DIVERTICULITIS

	Total	Number of Respondents	Recurrence	Subsequent Resection of Colon	Deceased
Mild illness—No treatment	37	18	9	1	4(one cancer of colon)
Medical treatment	88	61	31	6	10
Surgical treatment	58	33	7	2	4
1. Colon resection	46	26	5	1	
2. Laparotomy	6	4	1		
3. Colostomy	3	1	1	1	
4. By-pass	1	1	0		
5. Subtotal gastrectomy	1	1	0		
Total	183	112	47	9	18

Of particular interest are the six cases of perforation with generalized peritonitis. One occurred coincident with a bowel movement, another following castor oil for constipation; one occurred during steroid administration and one during a tap water enema given for constipation, and one in which a small piece of wood penetrated the diseased colon.

months later. Furthermore, when diverticula were not visualized initially by colon x-ray examination in cases of suspected diverticulitis, a subsequent examination did disclose the diverticulae in six instances in less than one year. In three of the six cases, diverticulae were found on repeated examination within four days, two weeks, and one month of the original examination.

Conversely, the radiologist felt confident enough in finding colonic spasm, narrowing, "saw-tooth" deformity with localized tenderness that, even without demonstrable diverticula, a diagnosis of diverticulitis was warranted in eight cases. Goulard and Hampton[8] emphasized these same statements with the additional observation that localized tenderness and demonstration of abscesses are the most reliable roentgen signs of acute diverticulitis.

In seventeen radiologic examinations, the presence of carcinoma was suspected to coincide with diverticulitis. Of these seventeen, five were demonstrated to have carcinoma and diverticulitis. In the twelve other cases filling defects in the colon, thought to be carcinoma by the radiologist, were proved to be inflammatory diverticulitis alone at the time of surgical exploration.

As in other reported series, the location of the diverticula and diverticulitis was primarily the sigmoid colon. All instances of complete bowel obstruction (six) occurred in the sigmoid; filling defects, constriction or partial obstruction also had a similar predilection for the sigmoid colon in seventeen instances but was seen also in the ascending colon in two cases, ileum in one case and ascending colon and sigmoid simultaneously in one case.

Sixteen of the total of 183 symptomatic patients had no x-ray examination of the colon. In this group fall the diagnostic errors as indicated elsewhere.

In fifty-two examinations of the upper gastrointestinal tract, ten duodenal diverticula were visualized in association with the colonic diverticulae. It was not possible to relate symptoms specifically to the duodenal diverticulae nor was any surgical procedure directed toward removal of these diverticulae.

Follow-up

Of the original thirty-seven cases of minimal symptoms with diverticulosis demonstrated radiologically eighteen persons responded to a questionnaire. Eight of these continued to have at least minimal abdominal complaints of pain and one had subsequent colon resection for diverticulitis. Five were reported dead, one with carcinoma of the colon.

TABLE V. SUBSEQUENT COURSE OF DIVERTICULITIS ASSOCIATED WITH RECTAL BLEEDING

	Total	Number of Respondents	Severity of Recurrence	Carcinoma of Colon
Minimal bleeding	31	17	3	
Severe bleeding	10	7	1	1 (one year later)
Recurrence of bleeding		4*		

*All originally minimal.

Of the eighty-eight patients for whom medical programs were advised there were sixty-one responses to the questionnaire. Of these sixty-one respondents, thirty-one experienced recurrence (frequently multiple) of diverticulitis and six had subsequent colon resections. This proportion of one in two with recurrences persisted whether the initial episode of diverticulitis was mild, moderate or severe. Ten patients in this group had died, all of causes unrelated to diverticulitis.

Of the fifty-eight surgical patients, thirty-three responded and of these, twenty-six were patients with colonic resection. In this group of twenty-six respondents, five had recurrences of diverticulitis and one required resection of the remaining large bowel for relief of symptoms. In four respondents who had had laparotomy but no resection, only one experienced subsequent recurrences of diverticulitis. One respondent treated with simple colostomy later required resection of the bowel, one respondent treated with a by-passing procedure reported no further symptoms. The patient on whom the subtotal gastrectomy was done also reported no recurrence of symptoms. Four in this group of thirty-three had died, all apparently of diseases unrelated to diverticulitis.

Thus of those patients treated medically (including the surgical patients not treated definitively) we found that forty of eight-four respondents (or one of two) experienced recurrences of diverticulitis and six required later bowel resection. In those surgical patients treated with some form of definitive procedure, six of twenty-eight respondents (or about one in five) described recurrences of diverticulitis and two of these required subsequent additional bowel resection. Altering the tabulation of surgically-treated patients to corre-

spond to the evidence found in follow-up studies, indicates that sixty-five of 183 patients eventually had surgical treatment.

Of considerable interest is the subsequent course of those patients that manifested rectal bleeding. Of the original ten patients with severe bleeding there were seven respondents and none reported subsequent bleeding. Of the original thirty-one patients manifesting minimal bleeding, there were seventeen respondents and four reported subsequent bleeding, three minimal and a fourth apparently fairly severe bleeding. Recurrence of rectal bleeding does not therefore seem to be much of a problem.

Discussion

This study confirms much evidence presented in the past, that is, one in three patients with diverticulitis had some surgical procedure, diagnostic error occurred primarily as a result of confusion with acute appendicitis and pelvic disorders and probably could have been avoided with barium enema examinations of the colon. Bleeding from diverticulitis is an important symptom and bleeding from diverticulosis alone may be severe requiring multiple transfusions and, infrequently, surgical resection. Suppurative complications of diverticulitis have declined in the antibiotic era but mechanical complications of obstruction and hemorrhage have increased, at least relatively. Cancer and diverticulitis involve the same bowel segment, occur concomitantly, and most commonly are found together as an obstructive lesion of the sigmoid colon. Bowel resection is advised whenever there is doubt of the inflammatory nature of the colonic disease or when any degree of obstruction of the colon is present. In the event that non-surgical treatment is necessary for partially obstructive lesions of the colon, careful follow-up examinations by barium enema at yearly intervals seems indicated.

Diverticulitis may be diagnosed clinically with meager or negative radiographic findings, but roentgen examination remains the most certain means of diagnosis.

It is apparent from the course of illness in the patient after leaving the hospital that surgical resection of the diseased bowel results in fewer recurrences of diverticulitis but does not eliminate the problem in all instances. A physician whose decision that medical management is mandatory or seems desirable for whatever cause may expect that every other patient will have recurrences of diverticulitis, frequently multiple.

It is also apparent that rectal bleeding, severe or minimal, rarely will pose a problem subsequent to the initial episode.

Conclusions

1. Preoperative barium enemas would largely eliminate diagnostic errors when pelvic tumors appear as a problem of differential diagnosis.

2. Severe intestinal bleeding was more often associated with diverticulosis that diverticulitis and conservative (non-surgical) management of such bleeding was more successful than surgical resection. Recurrent rectal bleeding in diverticulitis or diverticulosis was not apparent in this study.

3. Surgical resection of the colon is indicated when any question of the benign nature of the lesion is present.

4. Diverticulitis and carcinoma of the sigmoid colon do appear concurrently and, in this series, most often in constricting lesions of the sigmoid colon.

5. Suppurative complications of diverticulitis have diminished with antibiotic therapy.

6. Surgical resection of a segment of the colon involved in diverticulitis represents the only definitive management of the disease.

7. Duodenal diverticula and colonic diverticula occurred together with surprising frequency.

8. A diagnosis of diverticulitis may be made clinically with radiologic evidence of diverticulosis only and in certain instances in the presence of completely negative radiologic examination of the colon.

9. Radiographic evidence interpreted as diverticulitis may exist without any clinical evidence of disease and probably represents chronic fibrotic changes in the wall of the colon without active inflammation.

10. One in two patients treated medically will have recurrence of diverticulitis. One in five patients treated surgically will also have recurrences of diverticulitis.

11. Two recommendations can be made: (a) Surgical resection of the diseased colon is advocated if the patient presents more than one severe episode of diverticulitis. (b) A barium enema should be done preoperatively in patients with atypical history of disease in the right lower quadrant of the abdomen simulating appendicitis.

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VENTRICULO-VENOUS SHUNT

(Continued from Page 376)

2. The mortality rate was 6 per cent due to septicemia. All of these patients had myelomeningoceles. Infection and death occurred one to three months postoperatively.

3. Sixty per cent of the patients showed demonstrable physical or mental improvement following the shunt.

4. The shunt is highly recommended in patients with myelomeningoceles, since it may reduce pressure on the myelomeningocele sufficiently so that direct attack on the latter may be avoided.

5. Ten revisions of the operation were required. Eight of these were due to obstruction of the distal catheter. This emphasized the importance of placing the distal catheter at least at the depth of the superior vena caval-auricular junction, and preferably within the confines of the right auricle.

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The Physiology of Micturition

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MICTURITION in the normal individual is a simple co-ordinated, voluntary process which expels urine intermittently from the body. The structures primarily involved in urination are the bladder, the urethra and the nervous system. The striated muscles of the abdomen, diaphragm and pelvis play a secondary, accessory part and are not necessary for the initiation, maintenance or inhibition of urination.[1,2]

The Bladder

It is essential to understand the properties of smooth muscle as one attempts to comprehend the act of micturition. Smooth muscle is the tissue which stores urine continently and which expels it voluntarily from the body; it is also known as plain or involuntary muscle.

The term "plain" and "smooth" refer to the histologic appearance of this type of tissue as opposed to striated muscle. The term "involuntary" has also been used because "speaking generally, the contractions of this tissue are removed from the direct control of the will, being regulated by reflex and usually unconscious stimulations from the central nervous system."[8] This concept, set forth by Howell must now be modified, for recent experiments conducted by Lapides, Sweet and Lewis and employing curare and anectine[13] demonstrate unequivocally that bladder smooth muscle is controlled directly by the higher nerve centers. These investigators found that normal subjects in whom all striated muscles were paralyzed were able to urinate voluntarily, could stop voiding at will, and could empty their bladders completely. Their experiments prove conclusively that striated muscles play a minor role in micturition, and show, as well, that the smooth muscle of the bladder is under voluntary control of the higher centers mediated over the parasympathetic nervous pathways.

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A most important characteristic of smooth muscle is its ability to develop a state of tonus, that is, a condition of maintained contraction and increased tension. The appropriate stimulus for such tonicity is extension or stretching of the muscle. In the case of bladder muscle, the stretching of the bladder walls by urine constitutes the physiologic stimulus for the development of tonicity. This property is inherent in smooth muscle and is completely independent of the central nervous system. The property of tonicity is so rugged that it is not dissipated until ten to twenty minutes after death.[17] In fact, bladder tonicity persists for a short time after the bladder has been removed from the body and has been exposed to room temperature.[10]

Tonic contraction of smooth muscle is associated with a negligible expenditure of energy and a resistance to fatigue.[4] It is obvious that any injury to the nervous system such as transverse myelitis accompanied by spinal shock will not affect basic bladder tonicity[15,17] since this is an intrinsic property of smooth muscle and is independent of the central nervous system. The bladder becomes atonic only when its musculature has become decompensated from prolonged over-distention; never from deafferentation, *per se*, as occurs in the skeletal muscles of the extremities following posterior rhizotomy or during spinal shock.

Perhaps the most significant aspect of smooth muscle tonicity is its relationship to the function of the internal vesical sphincter. For many years the exact structure, location and mechanism-of-action of the so-called internal vesical sphincter have been an enigma. Numerous theories have been proposed concerning it, but none has withstood critical evaluation. Recent investigations[10] indicate that the internal vesical sphincter comprises the entire urethra in the female and the posterior urethra in the male (the portion extending from the internal urethral orifice to the ejaculatory ducts). The posterior urethra and the bladder have a common *anlage* in that both are developed from the vesico-urethral sac of the urogenital sinus.

We believe, in concord with Evans[5] and Griffiths,[6] that the proximal urethra is the true neck of the bladder, both anatomically and functionally. This portion of the urethra possesses the same muscle layers and nerve fibers as does the fundus of the bladder. While the bladder is filling with urine and micturition is not taking place, no motor impulses are transmitted to the bladder fundus or neck (proximal urethra); the neck of the bladder (or proximal urethra) maintains the continence of urine by virtue of the inherent tonicity of its smooth muscle. This resistance is sufficient to keep the urine in the bladder under ordinary conditions of daily living.

Let us now consider the function of the vesical sphincter during urination. All investigators are agreed that the vesical neck opens and becomes funnel-shaped when micturition commences. Cinefluorographical examination shows that the bladder base seems to descend,[1,7] while cystoscopy[10] shows that the most proximal portion of the posterior urethra appears to be drawn up, merging into the globular fundus. Evans[5] recorded action potentials from the fundus and the neck of the bladder during urination and found the same type and pattern of activity occurring simultaneously in both areas. *All of these observations suggest that the bladder neck opens not because of muscle relaxation but because of active contraction of the entire bladder musculature.* In essence, when motor impulses from the central nervous system stimulate contraction of the muscle fibers of the bladder fundus and neck, the bladder tends to change from a flask-like structure to a more spherical shape by pulling the urethra open and shortening it (Fig. 1). When the voiding contraction of the bladder ceases, the muscle resumes its former tension and configuration (the muscle at the outlet of the bladder changes back from a globular to a tubular form). The validity of these explanations has been demonstrated conclusively in the experiments carried out by Lapides at the University of Michigan and reported at a recent meeting of the American Urological Association.[10] Lapides performed operations upon dogs removing the entire urethra and closing off the bladder outlet with sutures. A muscle flap was then raised at the dome of the bladder and fashioned into a tube; and the end was brought out to the belly wall where it was anastomosed to the skin (Fig. 2). Three weeks after the operation all the animals were found to have complete urinary control, voluntarily voided through the

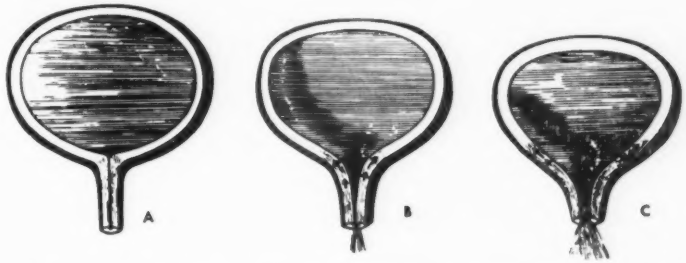

Fig. 1. Bladder change from flask-like structure to spherical shape during micturition.

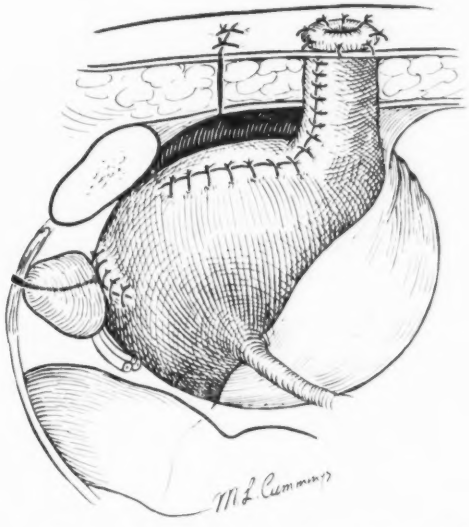

Fig. 2. Experimental muscular conduit replacing urethra in dogs with retained bladder control.

muscular conduit and emptied their bladders. It was discovered that complete continence of urine depended upon the length of the conduit, a two centimeter length being essential. In these and other experiments, it was demonstrated that shorter urethras, either natural or artificial, did not provide complete urinary continence in the animals.

This same operation was performed upon a man who had urinary obstruction because of extensive urethral stricture. In addition, this patient suffered from advanced organic brain syndrome and had a neurogenic bladder of the uninhibited type. After operation he was observed to void through the newly-formed conduit with a forceful uninterrupted stream in amounts of 250 to 300 cc. and emptied his bladder completely. He dribbled no urine during the time interval between involuntary voidings; his bladder functioned precisely like the bladder in a newborn baby.

Another property of bladder smooth muscle is its ability to maintain a relatively low constant intravesical pressure as volumes of fluid increase. The constant low pressure permits the ureters to pump urine into the bladder without placing an excessive burden on the ureteral musculature. Normal intravesical pressure is far below the pressure required to force the vesical neck open, and thus it is coordinated nicely with the mechanics of action of the internal vesical sphincter.

Before we proceed to the relationship of the nervous system to micturition, it would be well to summarize briefly the intrinsic characteristics of the bladder. The bladder is composed of two parts, the fundus and the neck. The neck consists of the entire urethra in the female and of the posterior urethra in the male. The neck is synonymous with the internal vesical sphincter in that it is primarily responsible for keeping urine in the fundus of the quiescent bladder. The inherent tension and contraction of the bladder smooth muscle in the neck, in response to urine pressure in the fundus, keeps the walls of the vesical neck in close approximation and prevents the escape of urine. As the bladder fills with urine, the muscle adjusts its tension and state of contraction so that the intravesical pressure remains low and approximately constant.

Two properties of bladder muscle, namely, tonicity and accommodation, are intrinsic and are completely independent of the central nervous system. Without receiving stimuli from the central nervous system, the bladder cannot initiate a true voiding contraction and open its neck. In the human being, the bladder does not exhibit rhythmic contractions.

The Nervous System—Spinal Reflex Arc

The basic requisites necessary to the efficient emptying of the bladder at regular intervals are a normal bladder musculature and an intact normal lower reflex arc. This situation obtains in babies and in some paraplegics whose bladders empty periodically and involuntarily.

Before the components of the lower reflex arc are discussed, it would be well to evaluate the functions of the sympathetic and parasympathetic nervous systems in micturition. Experimental studies in the normal subject and in the paraplegic patient[12] indicate that neither stimulation nor inhibition of the thoraco-lumbar or sympathetic portion of the autonomic nervous system has any effect on micturition. Pre-sacral neurotomy in the human being does not influence urination.[16] Cholinergic and anticholinergic drugs, however, have a profound effect on bladder voiding contractions.[12] Thus, on the basis of experimental evidence, the parasympathetic nervous system appears to provide the motor fibers for the bladder fundus and neck. *The sympathetic system has no influence on the initiation, maintenance or inhibition of urination in the human being and should be eliminated from all future discussions of bladder physiology.*

Most of the sensory nerve fibers coming from the bladder accompany the parasympathetic motor fibers in the pelvic nerve and carry both exteroceptive and proprioceptive sensations to the central nervous system. The exteroceptive sensations include pain and temperature, while the proprioceptive endings give rise to the desire to void and the feeling of bladder fullness. The motor neurones lie in the lateral horn of the sacral spinal cord at the levels of S_2, S_3 and S_4. The motor fibers extend from the motor neurone to the wall of the bladder where ganglionic synapses and postganglionic fibers are situated. Figure 3 illustrates the spinal reflex as concerned with micturition.

As the bladder fills with urine, the proprioceptive endings are stretched and nerve impulses are carried to the spinal cord. In the spinal cord the sensory impulses bombard, and eventually cause a discharge, of the lower motor neurones. The motor impulses arising in the neurones travel over the efferent fibers, ganglionic synapses and neu-

romuscular endings, to stimulate contraction of the muscle of the bladder fundus and neck. The bladder fundus contracts down upon the bolus of urine and at the same time pulls open the tubular bladder neck to expel the urine.

Before the urine can traverse the entire urethra in the male, relaxation of the external urethral sphincter must take place. This muscle is striated and its motor neurones lie in the anterior horn of sacral spinal segments 2, 3 and 4. While the bladder is being filled with urine and is not undergoing a voiding contraction, the external urethral sphincter is in a tonic state by reason of motor impulses traveling over the pudendal nerve to the muscle. This striated muscle differs from bladder neck smooth muscle in that it demands continuous motor impulses in order to remain in a tonic state. When a voiding contraction of the bladder is initiated, a reflex relaxation of the external urethral sphincter occurs. The afferent limb of the reflex arc to the external sphincter is in the pelvic nerve while the efferent limb is in the pudendal nerve.[5] It should be emphasized that relaxation of this muscle always follows contraction of the detrusor and never precedes it. The external urethral sphincter cannot be completely relaxed voluntarily.[3] The primary function of this muscle is to stop urination suddenly.[13] Micturition can be halted within one to two seconds with the aid of the external sphincter, whereas ten to fifteen seconds are required to stop urination when the external sphincter has been paralyzed.

In addition to its function in inhibiting micturition rapidly, the external urethral sphincter in the male serves to maintain continence when the bladder neck or internal sphincter is incapacitated, for example, following prostatectomy, and when the intravesical pressure is unusually high. In the female, the external urethral sphincter is a flimsy muscle surrounding the urethral meatus and is of little functional importance.

The Nervous System—Higher Center Control

In the preceding discussion a mechanism for the intermittent expulsion of urine from the body has been described. The essential mechanism includes the bladder fundus, bladder neck (proximal urethra or internal vesical sphincter), and the spinal reflex arc. In infants, and in some paraplegic patients, this mechanism, without aid from the brain, serves to empty the bladder completely, at intervals.

As the infant grows, the long spinal nerve tracts linking the higher centers to the lower spinal reflex arcs begin to funtion. Exteroceptive sensation is carried to the higher centers by the lateral spinothalamic tract, while proprioceptive impulses ascend by way of the fasciculus gracilis. The spinal reflex arc concerned with micturition is brought under the control of the higher centers through the descending cortico-regulatory tracts. It is generally believed that the pyramidal, as well as extrapyramidal, tracts comprise the cortico-regulatory tract. Figure 3 depicts the gross nervous structures concerned with urination.

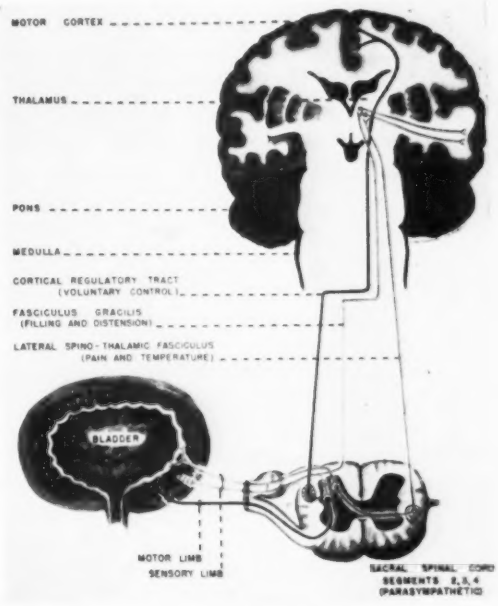

Fig. 3. Neuroanatomy illustrating gross nervous structures concerned with urination.

The areas in the brain concerned with micturition are ill-defined at the present time.[2,9,14] Irrespective of the points of origin of impulses which descend the cortico-regulatory tracts, it is well established, clinically as well as experimentally, that the cortico-regulatory tract can initiate, as well as inhibit, voiding contractions of the bladder by directly influencing the lower motor neurones to the bladder.

The higher centers do not regulate the basic tonicity of bladder smooth muscle; nor do the emotions have any effect on bladder tonicity. The primary function of the brain in micturition is to

set in motion a voiding contraction of the bladder or to stop (or inhibit) a voiding contraction that is already in progress. The voiding contraction is superimposed upon the quiescent basic tonicity of the bladder. Thus it is the variations in the voiding contraction that are observed with various emotions and lesions of the brain and not the resting basic tonicity of the detrusor. It may seem picayunish to emphasize repeatedly that the bladder smooth muscle possesses an inherent tonicity; but it is precisely this property of bladder muscle which is the key to an understanding of bladder physiology.

Summary

The primary structures necessary for the initiation, maintenance and inhibition of urination are the bladder fundus, the bladder neck (synonymous with posterior urethra or internal vesical sphincter), and the nervous system. Basic tonicity, an intrinsic property of bladder smooth muscle, is responsible for the maintenance of urinary continence. Voluntary control of urination is exerted through the cortico-regulatory tracts (from the higher centers) upon the motor neurones of the bladder—a direct cortical control over smooth muscle. The motor nerves extending to the bladder are parasympathetic in origin.

The sympathetic nervous system has no demonstrated function in micturition. Some of the striated muscles of the body may play a secondary, supporting role. The external urethral sphincter is necessary for sudden interruption of urination, and for maintenance of continence in the male, when the vesical neck (internal vesical sphincter) has been incapacitated.

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WAYNE STATE UNIVERSITY ENROLLMENT

Enrollment at Wayne State University totaled 20,430 this semester with all but one college showing an increase over a year ago.

Figures released by the University's Division of Admissions and Records show 18,535 students enrolled in on-campus credit programs while another 1,895 are taking off-campus credit classes in the Detroit metropolitan area. The number of full-time students at the University also increased from 8,535 to 9,253, a rise of 8.4 per cent.

Despite the increases in the various colleges, over-all enrollment was down from the 21,894 fall figure of 1957. The decrease was caused by the termination last August of the University's non-matriculated student classification. More than 3,800 students were enrolled in this program in the fall of 1957.

Abuse of Single Whole Blood Tranfusions

By William Umiker, M.D., and
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THE expansion of blood banks and the development of sensitive techniques for determining the compatibility of blood to be transfused have obviated the dangers of unreplaced blood loss. This advancement has imposed new responsibilities on the physician to avoid unnecessary transfusions of blood and blood products because dangers continue to exist.[5,9,16,17,19]

A number of misuses of blood transfusions have been recorded: (1) overtransfusion during emergencies;[9] (2) unnecessary use during operations which are not attended by appreciable blood loss;[5] (3) substitution for anti-anemia agents;[16,17,19] (4) treatment of operative hypotension due to vasodilatation, especially during spinal anesthesia;[1] and (5) *use of the single transfusion,* which according to Allen and Stemmer,[1] is the greatest abuse. Robertson[16] found as many questionable indications for blood transfusions on a medical service as on a surgical or obstetric service.

This review of 100 consecutive single blood transfusions was instigated to gain some facts about the indication for the transfusion and the frequency of its use. The clinical records were reviewed to provide information on the actual need for the transfusions.

While it was difficult to delineate criteria for the use of single transfusions, it was not as difficult to recognize the cases in which single transfusions were not indicated or were inadequate.

Findings

Although almost 25 per cent of the patients who were transfused during the period of this study received only 500 ml. of whole blood, less than 5 per cent of the total blood was used for single transfusions. Ten of the 100 single transfusions were given to medical patients, eight were employed preoperatively or postoperatively, and eighty-two were given during an operation.

Of the ten single transfusions administered to patients on the medical service, eight were supportive for patients with advanced cancer or severe anemia secondary to renal disease, and were insufficient to improve the existing anemia (Table I).

TABLE I. STATUS OF 100 PATIENTS WHO RECEIVED SINGLE TRANSFUSIONS

Non-Surgical Patients	
Generalized carcinomatosis	4
Leukemia	1
Urinary tract infection	3
Portal cirrhosis with esophageal varices	1
"Terminal shock"	1
TOTAL	10
Surgical Patients	
Preoperative	4
Postoperative	4
During operation	82
TOTAL	90

One patient who had a chronic urinary tract infection had a favorable response to a single transfusion, with an elevation in hemoglobin concentration from 10.5 gm. per cent to 13.0 gm. per cent. This increase may have exposed an error in hemoglobin determination or may have represented a satisfactory readjustment of the hematocrit in the face of a nearly normal blood volume.

Of the eight surgical patients who received a transfusion prior to, or following an operation, three were not given sufficient blood to elevate the hemoglobin level to 11.5 gm. (Table II). One preoperative transfusion was given to a patient who had a hemoglobin level of 13.9 gm. prior to tranfusion. In three instances the data was incomplete. The one single transfusion which may have been indicated was given to an elderly patient whose hemoglobin level was corrected from 10.6 to 12.1 gm. by the transfusion in the postoperative period.

The blood replacement during various operations is presented in Tables III and IV. With the exception of neurosurgical procedures, the mean quantity of blood used was directly related to the magnitude of the procedure; and thus, as expected,

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single transfusions were given more frequently for operations associated with limited blood loss.

The operative records were examined carefully for statements concerning the indication for transfusion. Usually the estimate of the surgeon for the blood loss encountered during an operation was either not mentioned, or was described in non-quantitive adjectives such as: "not excessive," "usual," "less than 300 ml.," or "brisk." The estimates could not be related to changes in vital signs or to changes in hemoglobin concentration.

TABLE II.
ANALYSIS OF 100 WHOLE BLOOD TRANSFUSIONS

	During Operation	Preoperative or Postoperative	Medical	Total
Probably not needed	31	1	1	33
Insufficient	27	3	8	38
Possibly indicated	15	1	1	17
Data incomplete	9	3	0	12
Total	82	8	10	100

The pulse and blood pressure changes during operations, following which the hemoglobin level equaled or exceeded the preoperative level, were similar to those in which the postoperative hemoglobin level had decreased 2.0 gm. or more.

Since the indications for blood transfusions were seldom noted, and the operative records of pulse and blood pressure did not reflect blood loss accurately, it was necessary to use changes in the hemoglobin content for determining the need for blood. Although hemoglobin concentration does not measure red cell mass accurately unless accompanied by blood volume determination, it does provide some comparative information on the effect of blood loss and transfusions in similar operations.

Arbitrarily it was assumed that a transfusion of a single unit of blood was not necessary when:

1. The postoperative hemoglobin concentration was 12.5 gm. per cent or greater and was not more than 0.5 gm. per cent less than the preoperative level.

2. There was no record of excessive bleeding, or of bleeding estimated to be greater than 300 ml.

Thirty-eight per cent of the surgical patients fulfilled these criteria (Table IV).

The criterion for insufficient transfusion of blood was a fall in the postoperative hemoglobin level of 1.0 gm. or more, suggesting a deficit of 500 to 1000 ml. of blood in addition to the 500 ml. replaced by the single transfusion. Thirty-three per cent of the patients were classified in this group (Table IV). Study of individual cases suggested that transfusions should have been given more often or in larger quantities during neurosurgical, urologic, and orthopedic operations. This is supported by the findings in Table IV. There was a mean postoperative hemoglobin level decrease of 3.2 gm. in the neurosurgical, and 1.4 gm. in the orthopedic and urologic cases; while the decrease was only 0.3 and 0.6 gm. in the general and thoracic surgical procedures. It is further supported by reports of mean blood losses of 1,100 ml. and 650 ml. for neurosurgical and orthopedic procedures, respectively,[4,9,11] while in our series the respective mean volumes replaced were only 300 ml. and 370 ml.

TABLE III.
BLOOD REPLACEMENT FOR VARIOUS OPERATIONS
Veterans Administration Hospital, Ann Arbor

Operation	Average Replacement ml.	Total Cases Transfused	Single Transfusions* Per Cent
Thoracic	1050	81%	14
Intestinal	1050	82	22
Gastric	980	87	31
Orthopedic	370	29	24
Transurethral resection of prostate	320	43	65
Biliary	310	49	78
Neurosurgical	300	25	20
Thyroid	70	13	100

*Per cent of total transfusions.

TABLE IV. ANALYSIS OF SINGLE TRANSFUSIONS DURING OPERATIONS

Surgical Division	Total Procedures	Single Transfusions	Not Needed	Not Sufficient	Probably Indicated	Data Incomplete	Mean Hemoglobin Decrease
General*	490	30	18(60%)	6(20%)	4	2	0.3 gm.
Neurosurgical	66	7	(0%)	4(57%)	1	2	3.2 gm.
Thoracic	42	7	3(43%)	2(29%)	2	0	0.6 gm.
Orthopedic	122	17	6(35%)	7(41%)	2	2	1.4 gm.
Urologic	133	15	2(13%)	6(40%)	5	2	1.4 gm.
Miscellaneous		6	2(33%)	2(33%)	1	1	
Total		82	31(38%)	27(33%)	15(18%)	9(11%)	

*Principally abdominal and thyroid surgery.

Discussion

The fact that single transfusions made up only 5 per cent of the total whole blood used, indicates to us that when blood is indicated, a single transfusion is seldom sufficient to replete the deficit. Nevertheless, almost 25 per cent of the patients who were transfused, received only one transfusion.

It is recognized that one must be cautious in interpreting the indications for transfusion on the basis of the arbitrary criteria used. Though there is room for mature judgment in prescribing a transfusion, our analysis indicates that about 70 per cent of the single transfusions constituted insufficient blood replacement, or were not indicated.

While the replacement of blood is a part of good operative technique, there is a controversy on the extent to which blood loss should be replaced. Some authorities maintain that it is necessary to replace loss of less than 500 ml. in adults, because it requires up to fifty days for a hemoglobin level to return to normal after even such small losses.[6,12] Others believe that the usual amounts of blood lost during procedures such as appendectomy, hemorrhoidectomy, cholecystectomy, mastectomy, and thyroidectomy do not justify blood transfusions, and losses up to 600 or 700 ml. do not require replacement since such a loss does not disturb postoperative convalescence appreciably.[1,5,7] White *et al*[9] found that blood losses up to 1,200 ml. during neurosurgical procedures rarely produced signs and symptoms of hypovolemia.

Patients undergoing operations differ greatly in their blood requirements. Infants, elderly persons, or chronically-ill patients with contracted blood volumes must have careful replacements of even small losses since they are more susceptible to shock and are more sensitive to changes induced by anesthesia.[2,14] However, hypovolemia and a reduced red blood cell mass are a consideration in preoperative management which can be satisfied by appropriate repletion of blood or its fractions prior to operation. Blood volume determination and careful clinical estimation are helpful in guiding this repletion. Likewise, the measurement of operative blood loss by colorimetric or gravimetric methods should be encouraged, especially in poor risk patients.[3,11,13]

Although blood pressure and pulse recordings may be of value in estimating blood loss in injured healthy men,[8,10] they are not reliable guides during operations, because there are so many factors acting concurrently. In this study the lack of correlation between the hemoglobin changes and these vital signs was striking. Although we are aware that the hemoglobin concentration is a misleading indication for blood replacement, in actual practice it is a practical means of estimating the needs of a patient for whole blood during the postoperative course.

Over-replacement of blood was very frequent in operations on the stomach and biliary tract while under-replacement attended neurosurgical, urological, and orthopedic procedures. As expected, the percentage of single transfusions was high in those operations associated with a small average blood loss.

There would be less need to question the position of single whole blood tranfusion if no hazards existed. However, there is always the possibility of sensitization to known or unknown blood factors and of serum hepatitis. The number of deaths from overloading the cardiovascular system is difficult to assess, but this consideration remains as a real danger. Finally, breaks in blood banking and administration techniques still result in hemolytic incompatibility reactions and bacterial contamination of blood.

Conclusions

1. Single transfusions were administered to 22.9 per cent of patients who received blood transfusions during the period of this study.

2. Ten per cent of the single transfusions were used for non-surgical patients for the treatment of severe anemia, resulting chiefly from widespread cancer or infections of the urinary tract. Most of these transfusions did not alter the anemia appreciably, probably should not have been given, or should have been supplemented by additional transfusions.

3. Ninety per cent of the single transfusions were used for surgical patients, 82 per cent during operations. In 38 per cent of these, there was no convincing indication for transfusion, and in 33 per cent insufficient blood was used. In another 11 per cent, the data were incomplete.

4. Over-use of blood was more frequent during abdominal operations and under-use during neurosurgical, urologic, and orthopedic procedures.

5. Preoperative correction of hemoglobin con-

centration and blood volume in elderly or poor-risk patients, and colorimetric or gravimetric determinations of operative blood loss would eliminate most single transfusions during operations.

6. This analysis has emphasized the continuing need for careful definition of the indication for a whole blood transfusion.

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FACTS ABOUT PENICILLIN

Penicillin would probably have been lost as a weapon in modern drug therapy without the facilities and priceless know-how of the American pharmaceutical industry.

These facts are revealed in the current economic report of the Federal Trade Commission on antibiotic drugs which literally did not exist prior to 1941. In contrast, doctors wrote 73 million prescriptions for antibiotics in 1955, according to the Health News Institute. In 1956 antibiotic output in this country totaled 1,740,062 pounds.

The total of private and public funds authorized for new plant expenditures during World War II for antibiotics production was $30,218,367, at a final cost of $25,993,394 to private industry and $4,224,973 to the government.

Penicillin was discovered in 1929 by Sir Alexander Fleming, a British bacteriologist. But it was not until 1941 that enough of this life-saving material could be produced for it to be used on human patients. The facilities of American pharmaceutical companies were put to work in a crash program to produce the vital penicillin for wartime use. By March, 1942, the first U. S. patient was treated with penicillin, and by June, 1944, the Army and Navy had adopted penicillin as routine treatment for syphilis and other infections.


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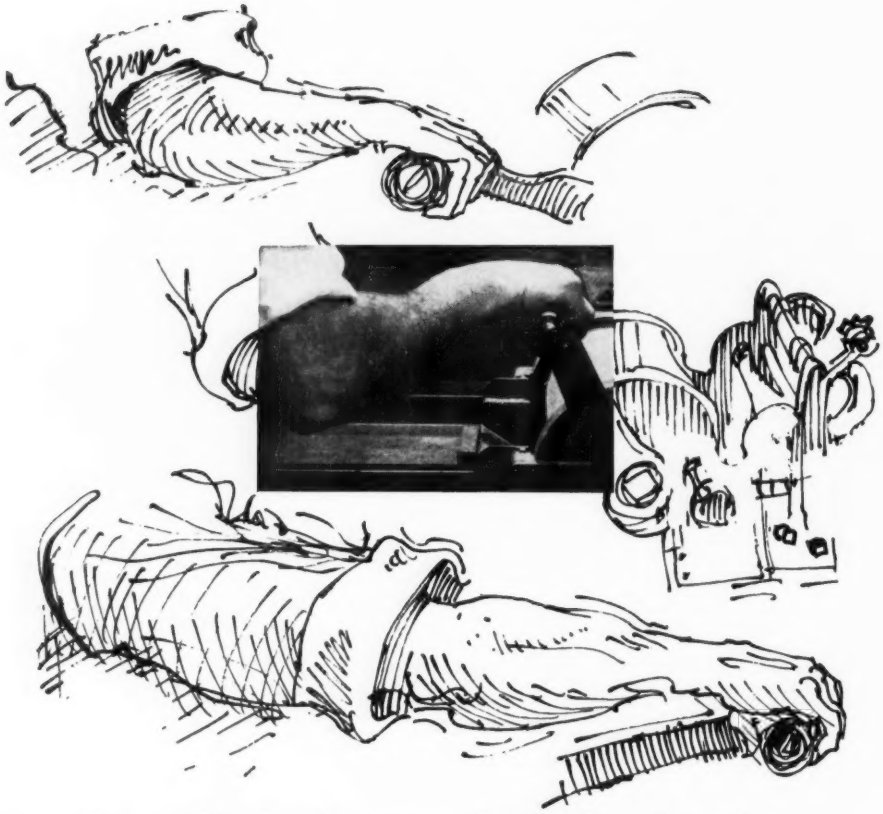

To the relief of musculoskeletal pain, new MEDAPRIN* adds restoration of function

Analgesics offer temporary relief of musculoskeletal pain, but they merely *mask* pain rather than getting at its *cause*. New Medaprin, in addition to bringing about prompt subjective improvement, promotes the *restoration of normal function* by suppressing the inflammation that *causes* the pain.

Medaprin, Upjohn's new analgesic-steroid combination, contains aspirin plus Medrol,** the corticosteroid with *the best therapeutic ratio in the steroid field*.† Instead of suffering recurrent discomfort because of the "wearing off" of analgesics, the patient on Medaprin experiences a smooth, *extended* relief and more normal mobility.

Indications: Medaprin is indicated in mild-to-moderate rheumatic and musculoskeletal conditions, including rheumatoid arthritis, deltoid bursitis, low back pain, neuralgia, synovitis, fibromyositis, osteoarthritis, low back sprain, traumatic wrist, sciatica, and "tennis elbow."

Dosage: The recommended dosage is 1 tablet q.i.d. The usual cautions and contraindications of corticotherapy should be observed.

Supplied: In bottles of 100 and 500.

Formula: Each Medaprin tablet contains

- 300 mg. acetylsalicylic acid, for prompt relief of pain
- 1 mg. Medrol, to suppress the causative inflammation
- 200 mg. calcium carbonate, as buffer

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An Evaluation of Medications Commonly Used in Asthma

By John M. Sheldon, M.D., L. Dell Henry, M.D. and James A. McLean, M.D.

Ann Arbor, Michigan

THE problems facing every clinician when he first meets a patient with an allergic disease are that of immediate control of the patient's symptoms and a studied approach to prevent further attacks. There is complete agreement among physicians as to the long-range therapy in the prevention of allergic disturbances. Such treatment includes the recognition of the etiologic triggers through a careful history and physical examination and the selective use of laboratory facilities, including skin tests. The problem of symptomatic control, however, has not met unanimity of opinion and perhaps through the development of newer medications we frequently lose sight of long-proven, valuable, old medications. The purpose of this communication is to attempt a critical evaluation of commonly used anti-allergic therapy both old and new.

Sympathomimetic Amines

The outstanding member of this group of very effective medications is epinephrine hydrochloride (adrenalin). It is useful particularly in bronchial asthma both by parenteral administration and by oral inhalation through nebulization of a fine spray. When given subcutaneously, the dosage is a patient-variable but usually in the range of 0.3 to 0.5 cc. of 1:1000 dilution (children 0.1 to 0.2 cc. of 1:1000) and may be repeated at fifteen minute intervals for three or four additional doses. Amounts in excess of those listed usually do not give added therapeutic effects because of local vascular constriction and decreased absorption. A large dosage also often will increase the pressor effects of tremor, shakiness, tachycardia and pallor. Longer-acting epinephrine (adrenalin in oil, Susphrine,® and Epinephrine Gel®) preparations are also available. One injection given in the evening may permit many hours of relief and a good night's rest.

There are a number of adrenalin-like compounds for oral inhalation available including epinephrine hydrochloride in strength of 1:100 and Isupropyl Arterenal (Isuprel,® Aludrine® Isonorine,® Norisodrine,® and Aeroline compound.®) One to four inhalations of any one of this group will often give dramatic relief to the asthmatic. These have the advantage of self medication and give great reassurance to the patient. Their effectiveness in asthma is largely dependent upon inhalation of the vapors to the lower lung structures; therefore, careful instruction in the use of the nebulizer so that the patient inhales as the medication is nebulized is important for its successful usage.

There are several synthetic sympathomimetic amines available for oral administration including ephedrine sulfate, Orthoxine,® and Isuprel.® In our experience, ephedrine sulfate is by far the most effective, but has the disadvantage of producing undesirable symptoms which may be greatly reduced in most patients by the simultaneous administration of a barbiturate. It must be recognized that these oral bronchial dilaters will not in themselves relieve a moderately severe or a severe paroxysm of asthma. However, they are extremely useful when given every four to five hours, especially if given continuously over long periods of time in prevention of attacks. Sublingual bronchodilaters, such as Isuprel® in 5 mg. to 10 mg. doses, in a few selected cases with mild to moderately severe asthma, are useful in relief of the attack but are not of particular value in prevention of paroxysms.

Xanthines

In consideration of all of the bronchodilators, the theophylline group (aminophylline) is undoubtedly the most dramatic, especially when

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given intravenously, in its therapeutic effect. It is our belief that intravenous aminophylline should be used only when it has been established that adrenalin will not relieve the attack. When administered intravenously it should be well diluted (0.25 gm. to 0.5 gm.) in 20 cc. to 250 cc. of isotonic glucose solution, and administered slowly (ten minutes to ninety minutes) at room temperature. Intramuscular theophylline compounds, although quite effective, should not be used routinely, because they produce severe pain and may cause tissue destruction at the site of administration. The oral route is the least efficient means of administration. In combination with ephedrine and a barbiturate, however, it often results in complete control of chronic asthma. This therapeutic action may possibly be explained by a synergistic property of the combination of drugs.

There may also be an element of bronchial obstruction present which will respond to bronchodilater drugs, even in the asymptomatic asthmatic patient whose chest is clear to auscultation.[4] Thus, it is felt that bronchodilaters taken only during the period of actual symptoms will benefit only the more severe spasm noted by the patient, while daily oral preparations taken every four hours or five hours will provide a better and more adequate pulmonary ventilation. Taking the medication with or after meals reduces gastric irritation. We have observed that patients with seasonal symptoms who receive oral bronchodilaters throughout the entire season, and those with perennial symptoms who continue on this program the year round, do exceedingly well. In addition, the use of an enteric coated delayed-action preparation at bedtime to insure a continuous effect throughout the night is extremely helpful.

Aminophylline suppositories 0.5 gm. are very effective in many patients but in many others they produce rectal irritation and certain individuals have difficulty in retaining them. In both instances, retention enemas containing 0.5 gm. to 1.0 gm. of aminophylline in 100 cc. to 150 cc. of tap water may be tolerated.

We should like again to point out that children often do not tolerate aminophylline either by intravenous or rectal route. Acute toxicity frequently occurs and even death has been reported.[16] There are a number of newer theophylline preparations, such as, Choledyl® and Elixophylline,® which may be given in fairly large dosage without producing gastric irritation. This latter compound usually is well tolerated and often quite effective in children. The usefulness of these preparations also occupies a very important place in the elderly asthmatic patient when ephedrine-containing compounds produce urinary retention symptoms.

Expectorants

Iodides are by far the most effective of this group of compounds and have stood the test of time. Although the main pharmacologic action is an expectorant one, many experienced clinicians believe that the iodides also possess another action which produces a remarkable amelioration of asthmatic symptoms for long periods of time in some patients.

It is felt, therefore, that iodides are a valuable addition to symptomatic bronchodilaters and the drugs should be administered jointly. From the many preparations available, syrup of hydriotic acid in doses of 5 cc. four times daily has been the most useful in children. For adults the saturated solution of potassium iodide in dosages of 15 gtt. to 30 gtt. in water after meals has proved most efficacious. Potassium iodide crystals (30 mg.) in combination with ephedrine sulfate (32 mg.), phenobarbital (32 mg.), and aminophylline 100 (mg.) have become very useful in our hands and are available commercially.

The majority of asthmatic patients tolerate iodides quite well but a few may have side effects,[2] the most common being an acneiform skin eruption or swelling of the submaxillary and/or parotid glands. Fever is occasionally a manifestation of drug idiosyncracy to iodides. If this fact is kept in mind, it may aid the physician in diagnosing an otherwise unexplained temperature spike in his patient. Recent reports have shown that prolonged iodide administration also can bring about a true hypothyroid state.[5,13] We have observed three cases of this type. When the iodides are stopped, reversal of the hypothyroid symptoms usually results, but if continued iodide administration is indicated thyroid extract may be given.

In the presence of iodide side effects, other expectorants may be employed. Glyceryl guaiacolate in 100 mg. dosage has been helpful and is available commercially (Robitussin®). Syrup of ammonium chloride and syrup of ipecac (15 minims) have been used for many years and may be tried.

Antibiotics and Chemotherapeutic Agents

There is little doubt that infectious factors play an important role either as the primary etiologic trigger (bacterial allergy) or as a perpetuating factor in many patients with vasomotor rhinitis, asthma, and atopic dermatitis. The selection of the antibiotic or chemotherapeutic agent is an individual patient problem. The choice of the antibiotic should be determined on the basis of the bacterial sensitivity study of the asthmatic patient's sputum. However, the use of the broad-spectrum drug may be desirable in the absence of a sensitivity study. In our opinion there is certain inherent risk in the use of penicillin in allergic people because of the danger of the anaphalactoid or delayed type of serum reactions. This opinion is based on an increased incidence of these reactions in allergic patients.[17]

Intermittent versus continuous antibiotic therapy remains a therapeutic dilemma in the asthmatic patient with recurrent infections and continuous symptoms. In general, we feel that a seven-day course of intensive antibiotic therapy for each infection is the treatment of choice, although a few children have appeared to do better on continuous therapy carried out through the winter months. However, a recent study[8] would imply that long-term antibiotics help the majority of children and adults with infectious asthma. In view of the fact that long-term oral antibiotic therapy may cause gastrointestinal complications, the triple sulfonomides, if tolerated at all, may be used with less risk of changing the intestinal flora and causing complications.

Certain risks appear to be inherent in this method of treatment, such as, further infection due to the growth of a resistant strain, the superimposition of infection from a normally non-pathogenic organism, or to a pulmonary fungus infection.

Antihistamines

In our opinion, the antihistamines are of little or no value in the therapeusis of asthma. They certainly will not relieve an acute attack and because of the atropine-like action inherent in the group of compounds are contraindicated in many instances. They cause thickening of the bronchial secretions and promote the production of bronchial plugs. There are instances, however, in which antihistamines may be of therapeutic value, such as the pollen-sensitive or mold-sensitive hay fever asthmatic patient. In this instance, the antihistamines may be used for relief of the hay fever symptoms.

Acetyl Salicylic Acid

In spite of the fact that aspirin frequently causes asthmatic symptoms (especially in the patient with allergic disturbances and the most frequently associated factor in nasal polyposis), it is occasionally a very effective therapeutic agent. We have observed five patients that are completely free of asthma while taking aspirin. This drug also gives striking results in relieving the symptoms of nasal stuffiness in patients with vasomotor rhinitis.

Oxygen

Oxygen is a very potent antitussic agent and when administered continuously in the presence of bronchial obstruction can produce pulmonary acidosis with resulting carbon dioxide narcosis and even death.[3] For these reasons we believe oxygen should be used in asthma only in the presence of a high degree of cyanosis and even then its administration should be interrupted rather than continuous. In the latter instance, the oxygen should not be chilled but should be used at room temperature.

Hydration

An important principle in the management of asthmatic patients, which is frequently overlooked, particularly with those suffering "status asthmaticus," is the relationship to water balance. An adult may develop a fluid deficit of 1500-2000 cc. of fluid per day due to hyperventilation, excessive perspiration and urinary excretion during a moderately severe asthmatic attack.[14] Children may become dehydrated even more rapidly than adults. Unless hydration is maintained, the sputum thickens and becomes tenacious. Thus the effect of the expectorants and bronchodilaters is inhibited. Usually the patient must be reminded to take fluids since the simple act of swallowing interferes with the respiratory cycle and increases dyspnea. Warm, nourishing liquids are recommended rather than cold or solid food. Intravenous fluid replacement will be necessary if the oral intake is inadequate. Glucose (5 per cent) in distilled water is an excellent means of replacement, although excessive electrolyte loss may occur from excessive perspira-

tion. Such loss must be measured by blood electrolyte determinations.

Sedation

In general, sedatives are indicated only to allay apprehension or as a means to avoid excessive pressor effects of the sympathomimetic amines. Barbiturates, especially sodium pentobarbital, are our choice. However, one must be sure that sensitization to these compounds does not exist. Chloral hydrate 0.5 gm. every four hours during the day and 2 gm. at bedtime is very effective. One need not fear sensitivity to this drug since it has a very low index of sensitizing ability. We have never observed an allergic reaction to this compound.

Gamma Globulin

Gamma globulin injections have been reported to reduce the frequency of upper respiratory infections and their complications. However, a recent double-blind, controlled study on twenty-two asthmatic children revealed the same number of infections per child in the two groups, and these compared in a similar way with the general population.[1] One of us has recently followed a youngster, aged three-and-one-half years with hypogamma globinemia, who has had dramatic relief of his asthma with the use of 2 cc. of gamma globulin intramuscularly every three weeks. Should the interval between doses be prolonged beyond the three-week period, asthma promptly returns and remains until the gamma globulin is repeated.

Adenovirus Vaccine

Respiratory infections are important as a primary trigger or a contributory cause of symptoms in a significant number of asthmatic patients. The cause may well be related to secondary invaders rather than a viral infection; nevertheless, the primary invasion triggers the chain of events. It would therefore seem logical that any agent which would give resistance to infection by raising the antibody titre against that organism might be a valuable therapeutic agent. During the past eighteen months we have administered a six-strain adenovirus vaccine* to over 200 intrinsic asthmatic persons. Preliminary observations would suggest that this vaccine has been of value in about 50 per cent of the cases. Dees[7] reports a similar experience; however, much longer observations over a much longer period of time and a very critical evaluation of the patients must occur before a final evaluation of its therapeutic usefulness will be known. Three-strain adenovirus vaccines have been available commercially, and undoubtedly more such vaccines can be expected in the near future.

Corticotropin (ACTH) and Corticosteroids

The decision as to when to use or not to use ACTH or steroids in an asthmatic is very difficult since one cannot dismiss the problem with a categorical approval or denial. Certainly these compounds exert a tremendously favorable effect in symptomatic control. However, their mechanism of action in all allergic disorders appears to be anti-inflammatory in nature and the basic pathologic problem remains unchanged. The physiologic action still is symptomatic and does not lessen the need for proper specific therapy, nor should it supplant other symptomatic therapy. In reality, their use actually increases the responsibility of the physician to evaluate adequately and carefully the entire allergic problem and the probability of mortality and morbidity in each and every case.

When all of the armamentarium enumerated has been utilized to the fullest and the patient has been hospitalized to remove him from his environmental and food allergens without resulting symptomatic control, one may be justified in instituting hormone therapy. Also, there may be rational reasons for their use in status asthmaticus.

If such patient has not received steroids within the previous six months, our choice would be ACTH, since its administration is least likely to commit the patient to prolonged therapy; and since the pituitary is more likely to respond to the "alarm reaction" after discontinuance of ACTH than is the adrenal to the withdrawal of corticosteroids. Continuous intravenous ACTH (10 to 20 units in 1000 cc. of 5 per cent glucose in distilled water by slow drip) will usually bring about improvement within a few hours, but complete relief of status asthmaticus usually requires several days of therapy. The addition of aminophylline 0.5 gm. to the glucose-ACTH mixture will often hasten recovery.

Continuous intravenous administration over the necessary several days' time results in much discomfort to the patient. We, therefore, agree with Hampton's[9] suggestion of intravenous ACTH over eight hours to twelve hours per day and a booster dose of ACTH gel at night. Patients with moderately severe asthma will respond well to 60 units

*The adenovirus vaccine used in this study was generously supplied by Parke, Davis and Company.

of ACTH gel every twelve hours. This dosage should be continued until all subjective and objective evidences of asthma have disappeared, and then the medication may be withdrawn by daily increments of 20 units in a step-like way until it is discontinued.

In acute status asthmaticus of a patient who has received steroids within the preceding six months, our choice would be intravenous hydrocortisone, giving 200 mg. the first twenty-four hours in a slow continuous drip. Usually improvement starts within four to six hours so that the second and subsequent days require 100 mg. or less of hydrocortisone. As improvement continues, the patient may be transferred to oral steroids. Intravenous Prednisone also is dramatic in relieving acute "status" in many instances. It is to be remembered, however, that Prednisone, like the other members of the newer steroid family, is not a complete adrenal steroid replacement and will not be an answer to the problem in certain cases. It is probable that these patients have a relative adrenalin insufficiency on maintenance dosage of the newer compounds and suddenly develop increased symptoms unrelieved by appreciably increasing the steroid dosage. It is quite frequently observed that, following a short course of ACTH, these same patients will again be controlled by the former dosage of steroids.

In 1955 we reported on a series of thirty-six chronic asthmatic patients receiving Prednisone.[15] Twenty-one of these patients were given Triamcinolone (Aristocort®).* They had all been on steroid therapy for an average of twenty-three months prior to starting Triamcinolone. The average duration of asthma was sixteen years, with emphysema being present in fourteen patients. The average daily dosage of Aristocort® was 5.6 mg. as compared to 10.6 mg. of Prednisone. In both instances the dosage was just sufficient to keep the patients relatively comfortable but not necessarily asthma-free. In addition to the steroid, oral bronchodilator drugs and expectorants were usually given continuously. The majority of patients showed intrinsic factors in etiology, although four were known to be aspirin-sensitive and ten had extrinsic factors, such as dust and pollen, as well as an infections problem. Members of the group have now been on Triamcinolone for a period of six months to twelve months. Their acute asthmatic attacks have been relieved but all have continued to require the steroids. Those who have developed an acute respiratory infection have required, temporarily, an increased daily dosage. It is interesting to note that rapid weight loss presumably related to water elimination occurred in four instances, while weight gain was observed in two; of the five patients showing marked "moon facies," four remained unchanged and one had a striking regression after being placed on Aristocort. Hypokalemia and weakness appeared as a new symptom in one case and marked leg and thigh weakness appeared in another. The latter symptom persisted for over three weeks after changing over to Medral. Two patients developed severe abdominal cramping pain requiring cessation of the steroid. It should be emphasized that some of the patients have done much better on Aristocort® than on Prednisone. From a much smaller experience with Medrol® and the newest of the group, Decadron®, the same may be said. It would seem, then, that the choice of steroids once the patient is committed, is an individual variable and that one patient will do better on one of the compounds, while the next patient will do better on still another of the group.

The increased death rate from asthma in the United States—a jump from 2521 per 100,000 population in 1945 to 5960 in 1955—is some cause for concern. Hiddlestone[10] reports very similar statistics for New Zealand and Kern's[12] observation that this has appeared at all age groups, but with a marked increase in mortality after the age of forty years, certainly places the onus upon the steroids. Furthermore, the increased death rate would raise the question of infections. It is well known that steroids increase the susceptibility to infections and in this group of patients bacterial allergy and bacterial infections play a prominent role. In addition to infections, the development of severe osteoporesis in asthmatic patients on prolonged steroid administration commonly occurs.[11] The spine and rib fractures with resultant pain and incapacity offer further therapeutic problems. Although peptic ulcer rarely occurs in asthma alone, it is frequently seen in association with pulmonary emphysema. Since a high percentage of the patients we see have a high degree of pulmonary emphysema, the frequency with which we are confronted with acute epigastric discomfort, gastric hemorrhage and perforation in patients

*Aristocort used in this study was generously supplied by Lederle Division of the American Cyanamid Company.

on steroids is quite understandable. Even though the more recent compounds do not have as great an effect upon salt and water retention and potassium depletion as the older drugs, at least 25 per cent of patients upon prolonged steroid therapy require therapeusis directed to correct these abnormalities. The anti-insulin action and the acceleration of gluconeogenesis produced by the steroids frequently cause elevated blood sugars and transient diabetes-like pictures. These compounds also will bring out true latent diabetes mellitus which must be watched for. Definite personality changes occur in patients treated with steroids. Elation, depression and wide mood swings appear to be common changes frequently observed. Recent studies[6] have also shown that growth arrest may occur in children on chronic steroid therapy.

With our present imperfect understanding of all the physiologic actions of these potent medications, it is wise for the physician to realize that he must be willing to accept the fact that the patient is more often than not being committed to long-term steroid therapy once these drugs are given. He must be prepared to follow carefully such a patient and treat the almost inevitable complications.

Summary

The long-range management of asthma revolves around pointing out each and all of the trigger substances and then eliminating these causes, or immunizing against them if they cannot be removed from the patient's environment.

The short-range therapy is concerned with relief of the immediate attack. Adrenalin, aminophylline and iodides separately or in combination are still excellent tools and when correctly and judiciously used will relieve the vast majority of acute paroxysms.

A number of newer compounds have been discussed and their relative value enumerated. A word of caution in instituting steroid therapy has been given and the multiplicity of side reactions from these drugs has been pointed out.

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CANCER IN CHILDHOOD

Cancer is much more common in childhood than is generally realized. It takes a greater number of lives among children five to fourteen years of age in the United States than any other disease, accounting for one out of every four deaths from disease at these ages . . . . Currently, about 4,000 cancer deaths occur annually at the ages under fifteen, or nearly 50 per cent more than a decade ago.—*Statistical Bulletin*, Metropolitan Life Insurance Co., December, 1958.

The Recognition and Correction of Water and Salt Deficits in Surgical Patients

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THE growing number of books and papers on the subject of "Fluid and Electrolyte Balance" has achieved a quantity that would provide an avid student an almost unlimited field for study for an almost unlimited period of time. The resultant plethora of polysyllabic words such as milliosmols, renal tubular transport mechanisms, and so forth, may achieve little but to offer communication between students of these subjects. Only too often, however, they leave the work-a-day surgeon, faced with the practical fluid problems encountered in a busy practice, not only confused but discouraged with attempts to decipher and translate these writings into the clinical care of his patients. Further confusion easily arises because the use of parenteral fluids remains an inexact science. Attempts to compensate for inexactitude may well result in dogma and standardization that prove to be therapeutically ineffective and potentially dangerous.

Although having not achieved perfection in parenteral fluid therapy, it is reasonable to suggest that at least a state of knowledge has been reached in which *minimal harm* should result from its intelligent use. The following is therefore being offered as a reasonably simple and yet comprehensively effective approach to the parenteral use of water, carbohydrate, sodium, chloride and potassium in the management of water and salt deficits in the injured or operated patient. These methods have been found to be clinically workable but hardly should they be considered to possess finality or perfection.

Recognition of Water Deficits

During health, the *urine volume* and *urine specific gravity* are the two most important indices of the adequacy of water intake. They tend to be reciprocals of each other; that is, low urine volume is accompanied by a high specific gravity and vice versa. In the injured or operated patient, however, the urine volumes and specific gravity, when being used to determine the adequacy of water intake, require careful interpretation.

The Urine Volume.—In health, the urine volume is determined by the amount of "excess water" demanding excretion after mandatory insensible loss (water vaporized by the skin and lungs), loss by sweating and fecal loss have been met. The urine volume is therefore highly variable depending upon the amount of water available from food and drink and the magnitude of mandatory loss.

What, then, is an adequate urine volume? An average adult excretes about 35 gm. of waste products per day of which the principal part results from protein metabolism. At least 15 milliliters (cc.) of water are required to dissolve each gram thus requiring about 500 ml. of urine to insure complete clearance. This, however, would require a urine specific gravity of 1.035, a concentration rarely observed in humans unless severe water deficit has been present for a period of time. Experience has demonstrated that a twenty-four-hour urine volume of 1000-1200 ml. will provide adequate metabolic waste clearance without excessive demand necessitated by the elaboration of a highly concentrated urine by the kidney.

As will be demonstrated, the "normal" volume concept is not always applicable following serious trauma or operations of considerable magnitude. Oliguria can be present in varying degrees and its duration and significance must be carefully interpreted.

Urine Specific Gravity.—The specific gravity of a substance is its weight compared with an equal volume of another substance which is a standard. For urine, the standard is distilled water. In health,

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the specific gravity of the urine depends principally upon the intake of water. A large water intake will result in a large urine volume with low urine specific gravity; conversely, a low intake

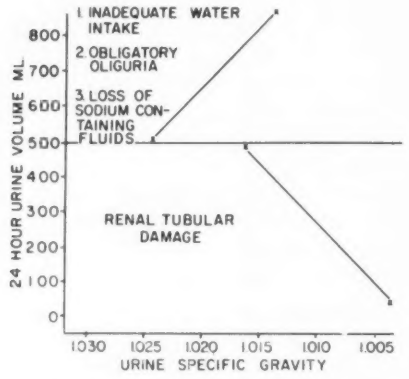

Fig. 1. Schematic representation of urine volume and specific gravity ratios in post-operative or post-traumatic oliguric states. Oliguria due to inadequate water intake, obligatory oliguria or loss of sodium containing body fluids continues to possess a reciprocal relationship between specific gravity and volume. Organic renal tubular damage, on the other hand, tends to have a direct relationship between volume and specific gravity, i.e., the smaller the volume the lower the specific gravity. Caution is necessary in the interpretation of specific gravity of urine as excessive content of protein, non-protein nitrogen and glucose obscure the true renal tubular concentrating ability.

will result in a low output of high specific gravity. This is chiefly attributable to the activity of the antidiuretic hormone secreted in response to minute changes in the sodium salt concentration of the plasma.[7]

In general, this reciprocal relationship of urine volume and specific gravity holds for the operated or injured patient. The specific gravity of the urine is a *rough but clinically useful index* of renal tubular function and can be of importance in differentiating oliguria produced by kidney damage from that due to other cases (Fig. 1).

Because increased postoperative nitrogen excretion, spillage of carbohydrate and proteinuria produce false high specific gravities of urine, their relative contribution should be assayed if maximum accuracy is to be obtained. Protein may be removed by flash boiling but excessive carbohydrate spillage and increased non-protein nitrogen in the urine cannot be so easily estimated. Marked carbohydrate spillage will require examination of a subsequent specimen free of sugar. Osmotic activity of the urine may also be determined by freezing point depression. Small urine volumes should demonstrate high osmotic activity if renal tubular function is satisfactory and low osmotic activity if renal damage is the cause of oliguria. This procedure, however, is not yet practical for the majority of hospitals.

Differential Diagnosis of Post-Traumatic (Operative) Oligurias

For the purpose of discussion let it be assumed that accurately measured twenty-four-hour urine volume under 800 ml. will be defined as an oliguria. The following questions should then be asked:

1. Is this due to an inadequate intake of water?

2. Does this represent the *obligatory oliguria* often observed following severe trauma or big operation?

3. Has there been a significant loss of salt containing fluids into body tissues (internal) or from the body (external)?

4. Does this represent organic kidney tubule damage due, for example, to hypotension, anoxia or incompatible blood transfusions?

5. Has there been damage to post renal structures (ureter, bladder or urethra)?

1. *Inadequate Water Intake.*—For the great majority of operations and following severe trauma, the early administration of large amounts of water in a carbohydrate solution is undesirable. In the average sized adult this amount should rarely exceed 1500 ml. during the first twenty-four-hours because of the unpredictability of renal response and the potential obligatory oliguria effect discussed below. High environmental temperatures and fever, however, sharply increase insensible loss of body water (vaporization from the skin and lung) and sweating. If the administration of water has been limited to 1500 ml. on the day of operation, it is not unusual for the accompanying urine output to vary between 500-800 ml. during the same twenty-four hours. No harm attends this temporary oliguria as patients have been kept almost completely without water for the first seventy-two postoperative hours without observed deleterious effects.[1] Keeping a patient on the "dry side" is a proven and safe procedure. The routine administration of 3000 ml. of water on the day of

operation is an invitation to trouble and has nothing to recommend it provided that large extra-renal loss of fluid is not simultaneously occurring.

Urine volumes of 500-800 ml. per twenty-four hours, resulting from the planned withholding of water or an inadvertent unplanned water deficit, have *high specific gravities* that measure at least 1.020 and often much higher (Fig. 1). Thirst is a common symptom.

2. *Obligatory Oliguria.*—Oliguria results from activation of powerful hormones by injury or operation. The pituitary gland triggers this response by increased secretion of anti-diuretic hormone from the posterior lobe and adrenocorticotrophic hormone from the anterior lobe. Other unidentified anti-diuretic factors also probably enter into this response. The anti-diuretic hormone acts upon the distal kidney tubule to increase the absorption of water; augmented secretion of salt retaining hormones from the adrenal gland possibly increases absorption of glomerular filtrate from the proximal tubule. Of these, it is believed that aldosterone is the most potent. The net result is a diminution of urine output. Although this effect may not significantly last for more than twenty-four hours, it can profoundly affect urine volume. It is difficult to separate obligatory oliguria from that produced by inadequate water intake as both are accompanied by outputs ranging from 500-800 ml. per twenty-four hours with *high specific gravities* (1.018-1.030).

3. *The Loss or Sequestration of Extracellular Fluid.*—These oligurias are due to a primary sodium salt deficit and subsequently will be discussed with that subject.

4. *Organic Damage to the Kidney (Lower or Universal Nephron Syndrome).*—All degrees of organic damage to the renal nephron may be produced by anoxia, hypotension, incompatible blood transfusions and hemodynamic variations in the blood supply of the kidneys. The initial twenty-four-hour urine volume may vary from 500 ml. to almost complete anuria and the duration of the oliguric period vary from one to twenty-one days. Any urine volume under 500 ml. should be considered evidence of such damage until proven otherwise. It is almost a certainty that volumes less than 100 ml. are pathognomonic of serious organic tubular change.

The importance of differentiating this type of oliguria from that of inadequate water intake or obligatory oliguria cannot be over-emphasized as renal damage necessitates *limitation or withholding* of fluids until renal recovery occurs. The oliguria produced by renal damage invariably has a *low specific gravity* (1.001-1.010) as the damaged tubule is incapable of producing a concentrated urine (Fig. 1).

There is a group of oligurias that apparently result from minimal to moderately acute organic tubular change or unanticipated previously-existing renal disease and are characterized by twenty-four-hour volumes of 300-500 ml. with specific gravities from 1.010-1.015. These usually last from one to five days followed by rapid recovery. Fluid administration should be limited during this period. Previously existing permanent kidney disease also requires cautious administration of parenteral fluids if over-hydration is to be prevented.

5. *Post-Renal Trauma.*—This is not a fluid problem. Treatment consists of the surgical correction of the underlying pathology.

The Treatment of Water Deficits

It would be over-simplification to state that the treatment of water deficits is the parenteral administration of more water. *The principal consideration is that the true nature of a low twenty-four-hour urine volume be accurately identified.*

Oligurias due to inadequate administration of water should be corrected gently and not by "forcing" large amounts of water and carbohydrate solution. For most cases the parenteral infusion of 2000-2500 ml. of water during the subsequent twenty-four hours will suffice. The most serious mistakes will be made by overhydration. The kind of carbohydrate is of no importance. Glucose, levulose or a combination of both are equally effective. For short term therapy the concentration of carbohydrate is of little practical importance. Solutions containing 10 per cent sugar provide twice as many calories. On the other hand, 10 per cent solutions are too often accompanied by widespread thrombosis of peripheral veins and a higher incidence of glycosuria. Tolerance for 10 per cent solutions is variable and urine checks for glycosuria are necessary to prevent glucose osmotic diuresis. Obligatory oliguria is rapidly self correctable. Management consists of limita-

tion of infused water during the initial twenty-four hours.

At the end of twenty-four hours following operation or injury, two serious mistakes can be made in the interpretation of low urine output:

1. Failure to recognize that the kidney cannot excrete water because organic tubular damage has occurred.

2. Failure to recognize that clinically significant amount of salt containing fluids have been lost externally and/or internally into the body tissues.

Renal Damage.—The damaged kidney cannot efficiently excrete water. Attempts to "stimulate" urine production by the administration of large amounts of parenteral water is not only fallacious but extremely dangerous. In questionable cases, particularly if the specific gravity has been of little help in the differential diagnosis, a test of water should be given. This is done by infusing 1000 ml. of 5 per cent glucose in water at a fairly rapid rate (500 ml. per hour). A sharp increase in urine flow will accompany this infusion if the kidneys are intact. If they are not, the urine flow will not increase, and this is *all of the fluid* that should be given for that twenty-four-hour period. Marginal volumes of 400-600 ml. per twenty-four hours, with specific gravities from 1.010-1.020, should be given only 1000-1500 ml. of water until such time as adequate renal function becomes apparent. Profound oligurias (less than 100 ml. per twenty-four hours) are diagnostic of severe kidney damage. It is not within the province of this paper to discuss the treatment of severe universal nephron syndrome. The reader is referred to the many excellent treatises on this subject.

Extracellular Fluid Loss.—Oliguria accompanying significant loss of extracellular fluids is related to sodium salt loss and diminished glomerular filtration. This will be discussed with recognition of sodium salt deficits.

The Recognition of Sodium Salt Deficits

It is essential to emphasize that the need for water and sodium salts is never the same. Man can live but a short while without water yet he may live for a considerable period of time without sodium salts. As further evidence, certain diseases of the cardiovascular system are treated with an intake of less than 1 gm. of sodium per day without apparent deleterious effects. The routine administration of "normal" saline or any 0.9 per cent sodium salt solution as a source of free water is a pernicious practice which affords no benefit and potentially is hazardous. Unless significant loss of body fluids has occurred from external or internal causes *there is little need for the administration of sodium salts during the first twenty-four postoperative hours.* Hypotonic sodium salt solutions containing 0.2 to 0.3 per cent NaCl have achieved considerable usage during the past several years. This amount of sodium, in most cases, is safe in solutions being administered principally as a source of free water.

A significant need for sodium salt solutions exists after many kinds of serious trauma such as burns. Adequate replacement is an essential part of the therapeutic program.

There are three chief types of sodium salt deficit states that for practical purposes are comprehensive:

1. A contraction of the volume of extracellular fluid without change in the concentration of sodium, that is, the chemical estimation of sodium in the serum is normal. This is called *isotonic* or *iso-osmolar* sodium deficit.

2. A lowering of the serum sodium concentration. To be symptomatic in acute cases, the serum will usually be less than 130 milli-equivalents (mEq.) per liter. This is called *hypotonic* or *hypo-osmolar* sodium salt deficit and may or may not be accompanied by contraction of the extracellular volume (Figs. 3 and 4).

3. Disturbances in acid-base balance. These may be accompanied by a loss of extracellular fluid volume, tonicity or a combination of both.

1. *Isotonic (Volumetric) Sodium Salt Deficit.*—This is "normal chemistry sodium salt deficit." There has been a depletion of total body sodium but the chemical measurement in serum is normal (Fig. 2). If this condition cannot be diagnosed by determination of serum sodium and chloride, how then can it be identified? For the most part this is a *Clinical* diagnosis. A diminution of the extracellular fluid volume activates volume receptors probably located in the great vessels, the heart and the central nervous system.[6] These, in turn, produce peripheral vasoconstriction which can be an important key to the status of volume of extracellular fluid. Early signs and symptoms

are principally related to a shrinkage of the plasma volume; as the desalting process continues, signs of interstitial loss will become apparent. Although not 100 per cent reliable, the following signs and symptoms are of great value in estimating the status of the extracellular fluid volume:

Small Deficits of Extracellular Fluid (1000–2000 ml.).

Central Nervous System: apathy, depression of emotional tone, weakness.

Cardiovascular System: coolness of extremities, slight cyanosis of the nail beds, sluggish capillary filling, poor filling of veins on the dorsum of the hand, slight increase in pulse rate.

Skin: no changes early but after a day or two there is loss of turgor and volume.

Facies: no change early but as the plasma volume shrinks the malar eminences have heightened coloring due to concentration of the red blood cell mass producing relative greater hemoglobin concentration. This gives rise to the syndrome of "polycythemic dehydrational flush."[4]

Body Temperature: low due to diminished energy output. Fever if present, is due to accompanying inflammatory disease.

Eyes: diminished ocular tension may be present as well as slight recession of the globes into their sockets.

Urine Output: oliguria with tendency for fixation of the specific gravity at about 1.016-1.018. This is due principally to diminished glomerular filtration.

Blood Chemistries: early, the only finding may be an increase in blood urea nitrogen and slight increase in hemoglobin and hematocrit.

Moderate Deficits of Extracellular Fluid (2000-4000 ml.)

In addition to the above:

Cardiovascular System: marked diminution or absent venous filling of the veins on the dorsum of the hand, mild cyanosis changing to pallor; increased capillary mottling particularly in dependent areas. Increasing pulse rate, progressive diminution of the pulse volume; orthostatic hypotension (fainting upon assuming the erect position).

Urine Output: marked oliguria with specific gravities often fixed 1.016-1.018.

Large Deficits of Extracellular Fluid (4000-6000 ml.)

Central Nervous System: patient can be conscious, well oriented.

Cardiovascular System: blood pressure falling to "shock levels" while reclining; rapid pulse, diminishing pulse volume. This may go on to absent radial pulse, absent brachial artery blood pressure and yet the patient remains conscious.

Facies: marked malar flushing particularly if the loss has occurred rapidly.

Blood Chemistries: The picture is often as follows:

sodium	136-140	mEq./l.
chloride	96-100	mEq./l.
potassium	5-6	mEq./l.
CO_2	25-27	mEq./l.
BUN	30-60	mg. per cent
hematocrit	50-60	per cent
hemoglobin	15-19	gm.

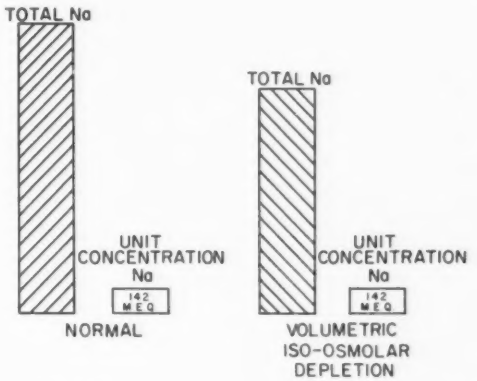

Fig. 2. Isotonic contraction of the extracellular fluid volume. The relatively rapid loss of plasma water and salt in approximate ratio to that found in plasma results in a depletion of total body sodium but the unit concentration as measured in milliequivalents per milliliter of serum remains normal. A patient may therefore be seriously depleted of sodium and yet the blood chemistries will be normal.

Serum potassium may be somewhat elevated. Although cause of this phenomenon is not clearly understood it probably represents a transfer of cell water and potassium into the extracellular fluid. The blood urea nitrogen rises early and often to a surprisingly high level. Hematocrit and hemoglobin levels reflect contraction of the plasma volume. If there has been hemorrhage or severe anemia then abnormally low hematocrits and hemoglobins will appear *falsely normal*, as the degree of anemia becomes apparent only after rehydration has occurred.

2. *Hypotonic (Hypo-osmolar) Sodium Salt Deficits.*—These are the three principal types:

Dilutional: The total body sodium is normal but the ability to excrete parenterally-administered water is impaired or the amount given is excessive (Fig. 3). Examples: (a) convulsions in children with megacolon during attempts to evacuate the colon with repeated tap water enemas, (b)

over-administration of glucose and water solutions following severe trauma or operation during the period in which renal tolerance to large loads of water is decreased. For the most part, this condition is best handled by the simple withholding of

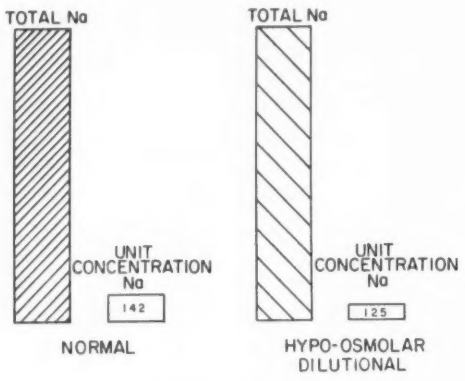

Fig. 3. Lowered serum sodium concentration hypo-osmolarity) produced by water retention. The total body sodium is normal but renal capacity to excrete administered water has been impaired with resultant dilution of the plasma sodium. This leads to the picture of true "water intoxication." Treatment principally consists of withholding of fluids and permitting internal adjustment to correct hypo-osmolarity. The administration of hypertonic salt solutions may be extremely hazardous.

water for a twenty-four to forty-eight-hour period. In the presence of signs and symptoms of severe brain irritation, however, (see later) hypertonic sodium solutions may be necessary but should be given cautiously as a real danger exists for over-expanding the extracellular fluid volume (Fig. 5).

Relative Water Excess: The total body sodium is low because of gradual uncompensated loss over a period of one to five days. Continued administration of excess sodium-free water results in gradual retention of water with resultant lowering of the serum sodium. The entire mechanism by which water is retained and osmolarity sacrificed is not entirely clear. Extracellular fluid volume receptors and diminished glomerular filtration rates have both been suggested as etiologic components.[5,6] This is the most common type of hyponatremia seen in surgical patients who have been on parenteral fluid for several days. Certainly all cases of this type do not need aggressive treatment with hypertonic sodium salt solutions. If signs and symptoms of central nervous system irritation are present, however, correction should be accomplished promptly with the appropriate hypertonic sodium solution (Figs. 4 and 5). Otherwise Ringer's or Hartmann's solution administration is efficient treatment provided that the degree of hypotonicity is not great and the patient is not symptomatic.

Chronic Hypotonicity Syndrome: Following periods of enforced bed rest, particularly if accompanied by a chronic loss of intestinal fluids such as might occur in chronic intestinal obstruction or low small bowel fistula, a general lowering of the tonicity of all body fluids may occur. Principally related to diminished energy output after weeks of semi-starvation, this type of hyponatremia is refractory to the usual sodium salt replacement as serum concentrations remain "low" or return to previously observed low levels even after the administration of hypertonic solutions. Time should not be wasted in fruitless efforts to restore "normal" chemistries through parenteral water and salt. Treatment should be directed at the operative correction of pathology that prevents the normal intake of all the essential elements of nutrition.

Symptoms resulting from lowered tonicity of the extracellular fluid are due to increased water content in the cells. A lowering of the osmotic pressure of serum is followed by intracellular edema. Because of the central nervous system is most sensitive to increase cell water content, clinical symptoms are usually initiated by irritative phenomena of the brain.

Symptoms Which May Result from Lowered Serum Sodium

Central Nervous System: mild disorientation that may progress to complete lack of contact with environment; restlessness progressing to maniacal conduct; muscle twitchings; convulsions, particularly in children.

Gastrointestinal: attempts at getting rid of excess water by vomiting or diarrhea.

Cardiovascular: signs of volumetric depletion may or may not be present. Pulmonary edema may result from over hydration from attempts to "stimulate" formation of urine.

Skin: persistent "fingerprinting" of the skin when pressure is made by the volar surface of the thumb on the skin of the sternum; several days of depletion may be necessary to produce this sign.

Urine Out-put: marked oliguria that may progress to almost total anuria.

Blood Chemistries: serum sodium low; increase of blood urea nitrogen.

Acid-Base Balance

The symptoms accompanying disturbances in acid-base equilibrium are essentially those related to the nature and magnitude of the deficit of sodium salts. Correction is an integral part of the treatment of the attendant sodium deficit. The classically described respiratory signs of "acidosis" and "alkalosis" are not commonly observed in the sick surgical patient. Disturbance in acid-base are therefore best diagnosed by determination of the CO_2 combining power and serum pH as the great majority of these problems are metabolic in nature.

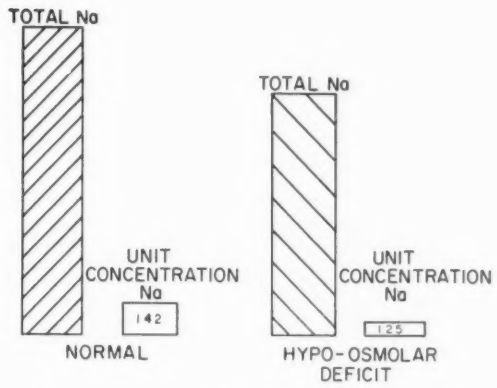

Fig. 4. Hypo-osmolar sodium deficit with lowered total body sodium. This is the most frequent type of sodium deficit seen in surgical patients particularly if inadequate sodium salt repletion has occurred over a period of two to five days. Aggressive treatment with hypertonic sodium salts is not necessary unless the patient is symptomatic. (See text.)

Reduced to a simple form, acidosis will follow the loss of body fluids containing relatively more sodium than chloride and during periods of starvation and uremia. Alkalosis will follow the loss of body fluids containing relatively more chloride than sodium and with marked potassium depletion.

Sodium lactate is a practical and easily stored salt that can be used to treat conditions of acidosis. It should not be used when severe hypotension is present as the lactate radical may be inefficiently metabolized by the liver during "shock." The use of sodium bicarbonate is recommended under these circumstances.

Ringer's solutions is recommended for the management of alkalosis because it contains about 50 per cent "excess" chloride ions when compared to the ratio of sodium and chloride in extracellular fluid. Rarely is there any indication for the use of ammonium chloride solutions in the management of alkalosis.

Correction of disturbances in acid-base balance should be an integral part of correction of sodium salt deficits and is achieved simultaneously during the correction of volumetric of hypo-osmolar deficits.

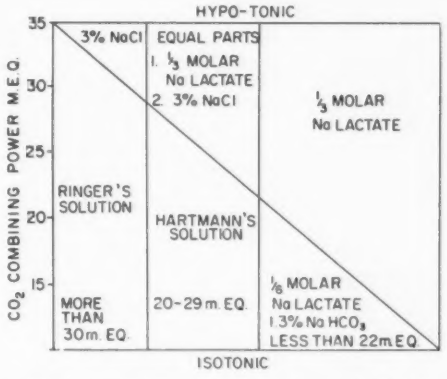

Fig. 5. Treatment of sodium salt deficits attended by disturbances of the CO_2 combining power and serum pH. Management of symptomatic hypotonic deficits is shown in the upper half and isotonic deficits in the lower. The type of hypertonic sodium salt solution used in hypotonic deficits varies from 3 per cent NaCl in marked alkalotic states to one-third molar sodium lactate in conditions of acidosis of comparable severity. For isotonic disturbances, solutions vary from Ringer's in alkalosis to the use of one-sixth molar sodium lactate for severe acidosis.

The Treatment of Sodium Salt Deficits

Isotonic (Iso-Osmolar or Volumetric) Deficits.—1. Day-to-day external loss of sodium-containing fluids is best replaced with an equal volume of parenteral solution containing approximately the same ionic constituency. This is good theory but difficult practice. Externally measured loss does not necessarily reflect the *total amount* of extracellular fluid which has been rendered physiologically ineffective. Internal shifts of fluid produced by edema, pooling, inflammation and other abnormal sequestrations can be of greater magnitude than measured external loss. An abnormal "third" space size can thus be created large enough to produce "shock" despite little or no external loss. This type of sequestration is not reflected in the daily weight of the patient since the fluid has not been

lost from the body; as a result, the replacement of measured external loss, only, may be totally inadequate to cover the depleted extracellular fluid volume. Only by careful clinical evaluation of the patient's day-to-day progress can early unanticipated deficits be demonstrated. Furthermore, the daily determination of the ionic constituencies of externally lost fluid is costly and usually not necessary as reasonable estimations of the constituents are usually possible. Fluid lost from the stomach is high in chloride and should be replaced with Ringer's solution.* Other types of intestinal drainage and internal sequestrations are best replaced with Hartmann's solution,† because the ratio between Na and Cl resembles that of extracellular fluid. Both solutions should be reinforced with added potassium *after* an adequate urine flow has been obtained.

2. Vomiting, diarrhea, tube drainage from stomach or bowel, biliary or pancreatic drainage, intestinal fistulae, peritonitis, intestinal obstruction, burns and severe infections are important causes of uncompensated volumetric extracellular fluid deficits.

(a) If the CO_2 combining power is normal or not lower than 22 mEq./l. (normal 27 mEq.) or greater than 29 mEq., the solution of choice for repletion of large deficits is Hartmann's. The amount to be given should parallel roughly the attendant physical signs and symptoms. The most important signs that adequate repletion has been obtained are: return of warmth, color and venous filling to the extremities; and return of a good urine flow. Added potassium should *not* be given until the adequacy of the urine flow has been established. After re-hydration has been satisfactorily accomplished, the hemoglobin, red blood cell count and hematocrit should be checked to be sure that the loss of plasma volume was not obscuring an anemia (Fig. 5).

(b) If the CO_2 combining power is less than 22 mEq., initiate rehydration with 1000 ml. of a 1/6 molar sodium lactate provided that severe hypotension is not present. A solution of $NaHCO_3$ is preferable with severe "shock." The replacement program can then be continued with Hartmann's solution.

(c) If the CO_2 combining power is greater than 29 mEq., then rehydration should be initiated with Ringer's solution. In the presence of severe alkalosis the whole of the repletion may be accomplished with this solution.

(d) Following correction of the deficit, adequate maintenance should be provided to prevent recurrence.

3. The importance of differentiating oliguria due to volumetric sodium salt deficit from that due to inadequate water intake or organic damage to the kidneys, is of the greatest importance. If an oliguria is secondary to a volumetric depletion of extracellular fluid, attempts to force the kidneys to elaborate urine by infusion of sodium-free water are ineffective. By such treatment a mild oliguria can be converted into almost complete renal shutdown. On the other hand, if an oliguria is due to a water deficit, the administration of sodium salts is an inefficient and hazardous method of providing free water.

The following are of value in suggesting that an oliguria is secondary to extracellular fluid depletion: (a) the history of the case is such that an internal or external deficit of sodium containing body fluids could have occurred, (b) specific gravities are in the 1.016-1.018 range; (3) physical examination demonstrates signs and symptoms of an extracellular fluid deficit, and (4) prior "adequate" amounts of sodium free water have been followed by progressive oliguria.

Hypotonic Sodium Salt Deficits.—The following outline is pertinent only to the correction of those hyponatremic states which occur during the first week following severe trauma and operation and are associated with a lowering of the total body sodium as well as the serum sodium (states of relative water excess). As stated previously, *all hyponatremic conditions of this type do not need aggressive treatment.* Hypertonic salt administration is most effective when signs of central nervous system irritation are present. Restoration of normal tonicity and acid-base relationship is the initial therapeutic objective (Fig. 5).

1. If the CO_2 combining power is normal or not extensively de-arranged (22-29 mEq.) therapy should be initiated by the administration of 500 ml. of a solution that contains 250 ml. of ⅓ molar sodium lactate and 250 ml. of 3 per cent NaCl. If the serum CO_2 is below 23 mEq. 500 ml. of a ⅓ molar sodium lactate should be given. Con-

*U.S.P. Ringer's solution contains per liter: NaCl, 8.6 gm.; KCl, 0.3 gm. and $CaCl_2$, 0.33 gm.

†U.S.P. Hartmann's solution contains per liter: NaCl, 6.0 gm.; Na lactate, 3.1 gm.; KCl, 0.3 gm.; and $CaCl_2$, 0.2 gm.

versely, if the CO_2 combining power is over 29 mEq., then 500 ml. of a 3 per cent NaCl are given. Infusion time: 1½ hours.

Hypertonic solutions have the effect of pulling water out of the cells thereby reducing the intracellular edema as well as expanding the extracellular fluid volume. Certain precautions are essential during administration. Constant check of body temperatures is necessary to prevent hyperthermia that may accompany the administration of hypertonic sodium salts. If the temperature exceeds 102-103 degrees F. administration should be slowed or discontinued. The administration of *whole blood, plasma or serum albumin* should simultaneously accompany or immediately follow the hypertonic salt. If this is not done, the repair of the defect in tonicity may be unstable and recur in a short time.

Although 500 ml. of hypertonic salt may be adequate, the actual amount given should be determined by what is necessary to relieve the irritative symptoms of the central nervous system. Following restoration of tonicity and correction of any pH defect, then the repair may be continued by correction of any residual volumetric deficit with Hartmann's solution. The amount to be given should be governed by the clinical response.

The Recognition and Treatment of Potassium Deficits

The most important consideration in the diagnosis of potassium deficit is recognition that an injury or disease state exists that could result in such depletion. The most common of these are: (a) prolonged starvation from inadequate food intake, (b) prolonged maintenance on parenteral fluids containing little or no potassium, (c) continued loss of gastrointestinal fluids, (d) rapidly growing neoplasms, (e) conditions of severe alkalosis and acidosis, and (f) adrenocortical dysfunction. Unfortunately certain signs and symptoms resemble those of sodium deficit and may therefore be masked.

Recognition:

Central Nervous System: Twitchings and tremors progressing to weakness and flaccid paralysis. The weakness accompanying marked potassium deficit is very severe and may progress to the point where the arm cannot be raised to the mouth. Initially reflexes are hyperactive but then rapidly progress to hyporeflexia. Mental hyperactivity, disorientation and coma may occur.

Gastrointestinal: Marked ileus with silent abdomen may be present. This may also attend severe sodium deficits, however.

Muscles: Marked hypotonicity.

Electrocardiogram: Depressed S-T segment with low voltage flattened T-waves. The ECG is not necessarily diagnostic unless control ECG's are available for comparison. This is an excellent technique for following the response to treatment.

Blood Chemistry: Depression of serum potassium. A normal serum potassium may not accurately reflect initially a loss of intracellular potassium. A low serum potassium is highly suggestive of a significant loss of total body potassium.

The serum CO_2 may be elevated. This is due to transfer of intracellular bicarbonate into the extracellular fluid with resultant intracellular acidosis and extracellular alkalosis.[2]

Urine: The paradox of an acid urine during alkalosis can be observed. When the body content of potassium falls, the normal competition between the renal excretion of potassium and hydrogen during sodium re-absorption becomes deranged. The result is increased excretion of hydrogen and conservation of potassium.[3]

Treatment:

1. Following severe trauma and during the first twenty-four postoperative hours, not only is there little need for parenteral potassium but administration is dangerous. Renal function may be impaired and it is well recognized that in the early postoperative hours, trauma and tissue destruction are attended by increased serum potassium.

2. Following re-establishment of an adequate urine output, potassium salts may be safely administered. Adequate maintenance for the greater majority of cases is provided by the daily administration of 2 to 4 gm. of KCl (27-54 mEq. of potassium). The salt may be given in glucose and water or sodium salt solutions with 2 gm. being added to each liter of solution.

3. Severe deficits of potassium may require from 6 to 12 grams of KCl per twenty-four hours (80-160 mEq. of potassium) before alleviation of symptoms is obtained. It is better to provide adequate maintenance rather than attempt heroic correction.

Conclusion

In conclusion, it should be emphasized that the administration of water, salt and carbohydrate are expedient measures attempting to maintain reasonable homeostasis of the body fluids during periods of oral deprivation. The longer parenteral fluid administration is required the less its effectiveness.

(Continued on Page 423)

Care of the Preschool Child's Eyes

By Harold F. Falls, M.D.
Ann Arbor, Michigan

IT has been estimated that nearly 80 per cent of our sensorium is mediated through the ocular system. Accordingly, it becomes self evident that the growing child needs an exacting normal sequence of development of this important sensory organ in order to meet the increasing and exacting demands of preparation and education for modern life. Extremely minute aberrations of ocular anatomy or physiology can so deleteriously influence the subsequent achievement of visual skills that the psychological and, consequently, educational adjustment of the child becomes abnormal or even pathologic. Physicians having the responsibility of the health care during the important formative years of the child (pediatrician, generalist and ophthalmologist) must be prepared and equipped to seek out, diagnose and adequately treat those subtle ocular deviations from the normal which, if neglected, may leave the child visually handicapped. Failure to initiate definitive and early treatment can subsequently make inadequate the child's adjustment to his environment, learning processes and eventual choice of vocation.

The role of the physician in assuring normal ocular development comes into play long before birth. The obstetrician and generalist, by insisting on the maintenance of excellent maternal health standards during pregnancy, can provide the fetus with the best environment standards known to science. In this respect there is supportive evidence for insisting that the health of the pregnant woman be meticulously guarded to aid in procuring the best possible development of the ocular system of the child. Immunization and prophylaxis against exposure to the acute exanthematous diseases, particularly during the first trimester of pregnancy, should be insisted upon. Gamma globulin therapy (admittedly, not yet widely accepted) for those women so exposed perhaps may be helpful to the fetus. Considerable evidence is accumulating to indicate that a pregnant woman, exposed to an acute exanthem disease, may possess sufficient personal immunity to prevent development of visible evidence of the disease, yet not have enough immunity to protect the fetus against the disease. In certain areas of the country endemic for histoplasmosis and toxoplasmosis, the alert physician should be on guard constantly against possible infliction of pregnant women. These specific agents have a particular predilection to attack the ocular tissues of the developing child.

The passage through the birth canal can be a most traumatic journey for the central nervous system and ocular system. It has been variously estimated that 19 to 36 per cent of all newborn babies exhibit varying degrees of retinal hemorrhages from this experience. The injudicious and/or necessary application of delivery forceps may produce ecchymosis and edema of the eyelids and orbital adnexa, rupture of the corneal endothelium with subsequent corneal scarring and even, although quite rarely, subluxation of the crystalline lens. Such injuries may lead to deep-seated amblyopia. Birth trauma to the orbital margin and floor of the orbit may terminate in an osteomyelitis of those structures with disastrous consequences to the eye. The gene-controlled Rh. and A.B.O. serological incompatibilities may have associated with them serious ocular pathology such as: optic nerve atrophy, retinal scarring and muscle palsies. Prompt exchange transfusion therapy may, on occasion, prevent such ocular pathology.

All premature infants should be subjected to ophthalmoscopic examination, particularly if they have been subjected to any amount of oxygen therapy, in order to ascertain the presence or absence of moderate or even minimal retinal, optic nerve or vascular aberrations secondary to retrolental fibroplasia.

Tears are usually not produced in the newborn until the child is at least two weeks of age. Epiphora present at the latter date is usually the result of a developmental stenosis of the nasolacrimal sac or duct. If two weeks of meticulous use of drops and massage, on the part of the mother, down and in from the internal palpebral ligament

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is not successful in establishing the patency of the passageway, then judicious probing of the sac by a trained physician should usually be curative. Undue procrastination or neglect can, not infrequently, lead to a chronic dacryocystitis or, what may be worse, bacterial invasion of the cornea with subsequent ulceration and scarring.

Parents, playful relatives and doting friends should be cautioned not to play with infants if they have long fingernails, while smoking cigarettes or cigars, or wearing pointed hats, hatpins, lapel buttons and so forth. The child's eyes should not be exposed to the wheezing, coughing and nasal dripping of an ill adult. Conjunctivitis with or without an accompanying upper respiratory infection may be the sequela of such an exposure. The danger to the eyes of sharp-pointed toys present in a child's bed or crib is self-evident and to be discouraged. Baby crib or basket mobiles or bright colored objects hung close to the eyes are both dangerous to the physical eye and also may stimulate physiological accommodative functions prematurely.

Co-ordinated concomitant movements of the child's eyes are usually not apparent before four to seven months of age; however, despite this a constant deviation (in or out) of one eye should immediately suggest intraocular pathology. Such a monocular deviation should necessitate a meticulous ophthalmoscopic examination under mydriasis and even, if necessary, general anesthesia.

Serious environment, hereditary or developmental intraocular pathology most likely to be encountered at such an age level include: (1) retinoblastoma, (2) bacterial endophthalmitis or retinitis, (3) persistent primary vitreous, (4) pseudoglioma, (5) retrolental fibroplasia, (6) vitreous hemorrhage—birth trauma, (7) congenital cystic detachment of retina, (8) rubella retinitis, (9) toxoplasmic chorioretinitis, (10) optic atrophy (rubella, toxoplasma, serological incompatibility), (11) congenital optic nerve aplasia, (12) aplasia of foveal area, (13) myopia, (14) developmental cataracts, (15) congenital glaucoma and (16) cataracts secondary to metabolic, hereditary and environmental diseases: (a) galactosemia, (b) incontinentia pigmenti, (c) renal tubal anomalies—Toni-Fanconi syndrome and Lowe's syndrome, (d) calcium disorders and (e) skeletal defect syndromes. The occurrence of any of the above diseases, as well as other well-known hereditary eye disorders in parents or siblings of a child, *makes it mandatory* to subject the child to a meticulous ophthalmological examination.

Periodic monocular deviations from the normal visual axes always necessitate early and prompt ophthalmological evaluation of the infant or child and under a cycloplegic drug. Since many of these children are very likely to develop amblyopia (suppression of foveal function), immediate medical ocular therapy (glasses and occlusion) should be instigated. It is axiomatic that two visually efficient eyes are better than one! Orthoptic evaluation and, when indicated, treatment to aid in instructing the child to use his two eyes together (fusion and stereopsis) should be secured wherein available. When glasses, occlusion and orthoptic treatment have failed to straighten the eyes then surgical interference will be necessary to align the visual axes. Providing the surgery is adequate and the child possesses a desire and faculty to establish fusion, the eyes will remain straight. No child "grows out of it"—instead amblyopia becomes deep-seated and the eye partially blind.

Each individual, of course, is a law unto himself and extreme variation in response to environmental and developmental agents is the rule. The efficiency of the visual functions, among them stereopsis, is influenced by the presence of errors of refraction, minor defects of the ocular media (corneal scars, lens aberrations, cataracts), clarity of vitreous and efficiency of the nervous mechanism (retina, optic nerve and brain). The state of general health, nervous stability and even the personality influence importantly the efficiency of ocular functions. The maintenance of a well-balanced psyche and soma is a necessity for normal ocular functioning. A clear binocular visual image is requisite to good visual interpretation. To ascertain if such exists, most preschool children should be subjected to a refraction under cycloplegic for only such a refraction will accurately determine the need or lack of need for glasses in children of this age group.

It is the responsibility and objective of the *medical profession* to see that all children, as young as possible, start their learning processes with the most efficient ocular system that it is possible to obtain. In general, equipped with a normally adequate central nervous system, free of systemic or psychic pathology and possessing normal and straight eyes, the average child should be able to develop efficient stereopsis. The chief stumbling block to securing preschool medical ocular exami-

nations is the lack of or availability of ophthalmologists. If true, it becomes the responsibility of the generalist and pediatrician to capably screen the preschool age group for obvious and even subtle ocular pathology. If a stethoscopic appraisal of the sick or well child's chest and heart is an integral part of the medical examination, surely an external and ophthalmoscopic examination of the ocular system is equally as important and requisite. The physician is taught to so do in medical school and should continue to do so in his practice. It is only necessary to continue to be particularly cognizant of the importance of a normal ocular system to the integrated development of the child's entire sensorium.

The following ocular examination is recommended for all preschool and school children:

1. A meticulous ocular history with inquiry into the maternal state of health during the child's pregnancy, presence of ocular disease in the specific family and the possibility of consanquinity of the parents.

2. An evaluation of the visual acuity—monocular: (a) Age group zero to two years—ease and facility of the child's fixation of light, or ability to follow small objects or plastic spheres;

(b) Age group two to three years—ability to recognize various size pictures or objects—Snellen picture chart;

(c) Age group three to six years—an illiterate Snellen E chart.

3. External ocular examination: (a) Light or small target fixation to exhibit presence or absence of manifest deviation of the eyes and nystagmus; (b) Cover test (hand or paper shield). The eyes, while fixating a target held in the physician's hand, are alternately covered. The deviation of the eye *under cover* is observed. If it turns in under cover an esophoria exists, if out under cover an exophoria. Covering one eye while the other eye fixates and then removing the cover will reveal the presence of an exotropia or esotropia. The eye just uncovered will remain in the position of deviation that it assumed under cover indicating the lack of fusion or partial fusion.

4. Extraocular muscle actions. The eyes binocularly fixating are made to follow a light or target in all cardinal directions of gaze. First, however, the eyes must be turned to the right, then up and down and then to the left and again up and down. Muscle palsies will be evidenced by failure of the eye to rotate fully in the field of action of the affected muscle.

5. External examination of the eyes. Gross or binocular loupe study of the eyelids, conjunctiva, cornea, anterior chamber and iris under good and intense light. Particular attention should be directed toward ruling out corneal scar or lens defects.

6. Ophthalmoscopic examination. The ophthalmoscopic examination should be done under mydriasis and should include all intraocular structures.

Summary

A plea is made for meticulous and careful *medical* examination of the preschool child's eyes. The obstetrician, pediatrician, generalist and ophthalmologist share the *medical* responsibility of preparing the child ocularly for his preparation for life. Diseases of the preschool child's eyes are medical problems and are solely the prerogative of the medical profession. These should not be relegated to non-medical practitioners.

HEW REPORTS CANCER CHEMOTHERAPY PROGRAM IN FULL OPERATION

The Public Health Service's "massive effort" to discover chemical compounds that will be effective and safe in the treatment of cancer is now in full scale operation, according to HEW Secretary Flemming. Hospitals, universities, research laboratories, industry and government are co-operating in the program which is being directed by the Public Health Service through its Cancer Chemotherapy National Service Center. The program has been steadily expanded over the past five years with these results:

1. More than 40,000 compounds and other materials are being tested annually on more than a million mice to uncover chemicals with anti-cancer properties. So far some 70,000 materials have been put through screening tests.

2. Between 400 and 600 materials a year are showing enough promise to be given further analysis, with tests on larger animals. Nine out of ten materials are rejected in this process either as ineffective or too toxic for human use.

3. About forty materials a year are approved for clinical trials with human patients in about 150 co-operating hospitals in the U. S. Currently about seventy materials are undergoing clinical trials.

Comments Secretary Flemming: "So far none of the drugs being tested has proved to be a cure for cancer. The only existing cures for cancer are through treatment by radiation or surgery. The Surgeon General advises me, however, that some promising new compounds developed in the chemotherapy program are being tested against a variety of cancers."

Acute Appendicitis

An Analysis of Complications in 551 Patients

By J. L. Ponka, M.D., H. L. Shields, M.D., and D. M. Evans, M.D.

Detroit, Michigan

FROM a superficial review of the literature one might gather the impression that the problem of appendicitis has been solved. The emphasis has been on the low mortality rates.[8] Several groups[2,7,9] report the mortality rates of less than 1 per cent, and some have had no deaths[4,6] in five-year periods. Few writers are discussing the rather respectable incidence of complications. Boyce,[1] in his book and numerous articles on acute appendicitis, has pleaded for early diagnosis and early surgery to avoid fatalities and complications.

TABLE I.
COMPLICATIONS FROM ACUTE APPENDICITIS
(551 Patients)

Complication	No.	Per Cent
Peritonitis	40	7.3
Abscess	20	3.6
Wound infection	14	2.5
Hernia	5	0.9
Postoperative ileus	4	0.72
Phlebothrombosis	5	0.9
Pulmonary emboli	2	0.36
Subdiaphragmatic abscess	1	0.18
Total	91	16.46

We wish to point out that deaths are still occurring from this surgically curable disease. In 1954 there were 2044 deaths, and in 1955 there were 2093 deaths from appendicitis, according to the *Vital Statistics of the United States*.[11,12] Most of these deaths occurred in the younger age groups.

Our interest in acute abdominal emergencies is stimulated by the daily encounter with patients requiring a differential diagnosis, which, of course, includes acute appendicitis. McGraw[6] reviewed the cases of appendectomy at the Henry Ford Hospital in 1948, and reported a zero mortality rate for a five-year period. Furthermore, he reported the complication rate at 4.5 per cent. Culotta[3] in 1956 reported a complication rate of 15.5 per cent following appendectomy.

We studied a total of 551 cases of acute appendicitis treated by appendectomy during the years 1948 through 1952. There was one death in this series due to a pulmonary embolus. On the other hand, the incidence of complications was 16.46 per cent (Table I).

TABLE II. ANTIBACTERIAL AGENTS USED IN TREATMENT OF COMPLICATIONS OF ACUTE APPENDICITIS
(551 Patients)

Antibiotic Used	Patients
Penicillin	190
Penicillin and streptomycin	247
Aureomycin	19
Chloramphenicol	9

TABLE III. AIDS IN TREATMENT OF COMPLICATIONS OF ACUTE APPENDICITIS
(551 Patients)

	No.	Per Cent
Drains	127	23.0
Levine tube	148	26.8
Miller Abbott tube	25	4.5
Blood transfusions	18	3.3

The complications, except phlebothrombosis and pulmonary emboli, were directly due to the extension of the infection beyond the confines of the appendix.

It is in the treatment of these complications that the antibiotics have proven most valuable. Table II indicates the antibacterial agents used. We would expect that the extensive use of antibacterial agents would eliminate most of the complications; however, this has not been our experience.

Other aids were used to combat local infection, ileus and anemia. These are summarized in Table III. It is apparent that these adjuncts are valu-

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able in controlling the infection after it has extended beyond the appendix and resulted in localized abscesses and caused secondary ileus.

These statistics provide us with some cause for reflection. *How can we decrease the death rate further? How can we reduce the high rate of complications?*

TABLE IV. HISTORY IN ACUTE APPENDICITIS
(551 Patients)

	No.	Per Cent
Catharsis	44	8.0
Enemata	63	11.4
Narcotics	10	1.8

Accurate clinical diagnosis must be taught to the oncoming younger surgeons. The pitfalls in diagnosing appendicitis in infants and young children, and in aged patients, must be pointed out. The fact that the so-called typical history can be elicited in approximately one-half of the cases must be pointed out.

The profession, as well as the lay public, must be repeatedly alerted to the truth that the proper treatment for appendicitis is early appendectomy. The operation should be done while the infection is confined to the appendix. Not every physician is aware of the basic facts shown by Toon[10] that antibiotics are not effective in controlling experimental obstructive appendicitis. There are articles (Harrison[5]) appearing in the surgical literature, advocating treatment of acute appendicitis with antibiotics.

Furthermore, to emphasize the need for public health education, the Table IV shows that catharsis, enemata and narcotics, are still being used as modes of treatment of the patient presenting an acute abdomen. Besides being dangerous, these ill-advised efforts delay the definitive appendectomy which is curative.

Conclusions

1. The fact that early appendectomy has long been established as the curative procedure for acute appendicitis needs emphasis.
2. Antibiotics are not effective in the treatment of appendicitis associated with appendicular obstruction.
3. Complications of appendicitis are much too common, (16.46 per cent in this series) and are the result of delays in diagnosis and surgical treatment.
4. Antibiotics, surgical drainage, gastro-intestinal tract decompression and blood transfusions are life saving adjuncts in the treatment of complications.
5. The public and the profession as well need to be reminded that appendicitis can be disabling, as well as fatal, if neglected.

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"BRICKS AND STRAW"

Not in decades have the non-educators of our country engaged in as much debate concerning our schools and colleges. And for this situation, we must thank the Russians and their earth satellites and their great progress in other fields. It is wholesome and healthy to have the largest possible number of our people thinking about the quality of education, the extent of educational opportunity, the cost of education, and the benefits of our educational system.—JOHN A. HANNAH, President, Michigan State University.

President's Message

Thanks, Jay!

Jay Ketchum is leaving Michigan Medical Service.

That hurts Michigan Medicine. It also hurts Michigan.

Why is Jay Ketchum, a layman, so important that his departure rates significant mention as a loss to Medicine, when there are many doctors of medicine who leave Michigan and their passing goes unheralded?

I think the answer to that points to the most important fact that Medicine faces today. The fact is that our sociology and economy being what it is, we have been forced to:

1. Organize a system known as Michigan Medical Service in order to
2. Protect the public and ourselves to the extent that we can
3. Continue to supply competent, personal, medical service to the sick—the kind of friendly intimate service the people need from their doctors.

Without the protection of a good voluntary prepaid medical care plan we cannot give that kind of service. Without that kind of service, Medicine fails as a science, an art and a profession.

Jay Ketchum administered the best medical service plan in the country—our plan. He administered it well, and under him it protected Michigan and Michigan Medicine. It hurts to lose the captain of the armed guard.

Delbert B. Hollenbeck

President, Michigan State Medical Society

Editorial

MEDICAL AND HOSPITAL SERVICE IN WASHTENAW COUNTY

Washtenaw County has been a center of medical activity in the state of Michigan for many years, beginning with the establishment of the University Hospital in Ann Arbor in 1869. Not only has the University Hospital grown and expanded, but other facilities also have developed to a degree which makes Washtenaw County outstanding in this regard. There are facilities available for indigents and for private patients as well.

The University Hospital was founded in 1869 when the regents authorized the conversion of a professorial residence into a hospital. This was, however, only a receiving home, where patients brought in for the clinics could be kept for "presentation to the class." It had no operating or dressing rooms, but was significant because it was the first instance in the United States of a University owning and controlling a hospital in connection with its own medical school.

In 1875, the Legislature made a grant of $8,000 for an enlarged University Hospital, to which the city of Ann Arbor contributed $4,000, and the following year the Hospital opened with sixty beds. It consisted of two pavilions extending from the rear of the original Hospital.

In 1878, another ten beds were added to be available to the newly created Homeopathic faculty. In 1879 an appropriation was made for converting another residence into a Homeopathic Hospital, all the space in the original building reverting to the Medical faculty. Funds were also made available at this time for the addition of an operating theatre, dining room, and kitchen. In 1881, an eye and ear ward was added, the first special ward to be added as a separate building.

In 1889, the city of Ann Arbor contributed $25,000 to augment a legislative appropriation of $50,000, and a new Hospital was constructed on Catherine Street, being completed in 1891. The old hospital on the campus was taken over by the dental school and used as such for many years before it was torn down to make room for the present chemistry building. The new hospital consisted of two buildings, one on the east for the medical faculty, and one on the west for the homeopathic faculty. Later some eighteen other buildings, large and small, were built. When the new Homeopathic Hospital on North University Avenue was opened in 1900, the west building became the medical ward and the east building, the surgical ward. In 1904, the Palmer ward, containing sixty beds, was opened as a memorial to Dr. A. B. Palmer by his widow, who contributed $20,000. An eye and ear ward was opened in 1910. An isolation ward was built in 1914 with $25,000 contributed by the city of Ann Arbor. In 1906, the Psychopathic Hospital was built and controlled by the state for many years. In 1937, however, it was turned over to the University. In 1906, the Department of Obstetrics opened in a building moved from North University Avenue, and in 1908 a second building was added.

The construction of the present building on Ann Street, begun in 1920, was completed in 1925, at a cost of $4,440,000. Couzens Hall for nurses was also completed in 1925. Two additional floors for the treatment of tuberculosis were added in 1931, the neuropsychiatric institute in 1937 and an intern's home in 1929. Simpson Memorial Institute was added in 1926 as a memorial to the late Thomas Henry Simpson by his wife.

At present, the operational bed capacity is 1047 beds, including forty-three bassinets. Fifty-three interns and 206 residents are in training, along with 651 student nurses. In 1957, there were 7,270 surgical and 14,335 medical admissions, a total of 21,605. Research facilities consist of the Kresge Research Building, totalling 140,000 square feet, and the Human Stress Research Laboratory, totalling 4,280 square feet.

The University Hospital has always been primarily devoted to the care of indigents, but in 1932 set aside a limited number of beds for private care. In addition, certain members of the faculty have the privilege of outside private practice and do their surgical work at St. Joseph's' Mercy Hospital in Ann Arbor.

The latter hospital was founded in 1911 in a house on North State Street which had been deeded to the Sisters of Mercy for a hospital. The

original staff of nine men was closed, and was controlled by the University Hospital medical staff according to contract. In 1931, however, this contract was cancelled and the staff became open. Since then the staff has gradually increased until at present it numbers about 130.

The original hospital had seventeen beds, with services in medicine, surgery, obstetrics, laboratory and emergency.

In 1917, a new building erected on North Ingalls Street with about ninety beds, was called "St. Joseph Sanitarium." During the influenza epidemic of 1918-20, the hospital was commandeered by the U.S. Army to care for its influenza cases. There were many deaths, including that of Sister Ligouri and two nurses.

In 1940, an expansion program was undertaken, and the bed capacity was increased to approximately 275. However, the needs of the growing community of Washtenaw County and the demand for hospitalization encouraged by hospital insurance led to further expansion in 1955. The new building, attached to the 1940 structure was in "X" design, and brought the total bed capacity to 499, although at present only 439 are operational, including fifty-four bassinets. Eleven interns, fifteen residents, and 117 nurses are in training. In 1957, there were 7,111 surgical and 9,958 medical discharges, a total of 17,069.

The staff is divided into a medical and a surgical division. The former includes internal medicine, physical medicine, allergy, dermatology, neurology, psychiatry, general practice, pediatrics, roentgenology and laboratory and pathology. The latter includes general surgery, ophthalmology, otolaryngology, oral and plastic surgery, obstetrics and gynecology, orthopedics, thoracic surgery, neurosurgery and urology. There are five free clinics; children's, obstetrics and gynecology; dermatology; medicine, and rheumatic fever.

A plan is on foot to convert one floor of the new building into a "senior residents facility."

Research is carried on in (a) the radio-active isotopes research laboratory; (b) the animal research laboratory; (c) the bacteriology research laboratory; (d) the medical library and (e) the cardiac research laboratory (soon to open).

Mercywood Sanitarium was established in 1925 as the neuropsychiatric unit of St. Joseph's Mercy Hospital, and an addition was made in 1953, bringing the present bed capacity to 130. As of July 1, 1958, Mercywood became an independent facility with an active staff of six psychiatrists. Annual admissions number about 1300. In the hospital is given short-term, intensive psychiatric treatment with a view of returning the patient to his family, job, and community. Patients are also accepted for diagnosis and evaluation in order to assist the families in long-term planning.

Beyer Hospital, in Ypsilanti, was made possible by a bequest of $50,000 in the will of the late Augustus Q. Beyer. The building was dedicated June 15, 1918 with twenty-five beds and three bassinets. In 1920, a house opposite the hospital was purchased as a nurses' residence.

During 1941-42, the population of the area trebled, due largely to the erection of the Willow Run Bomber Plant two miles east of Ypsilanti. By 1943, it became necessary to add to the hospital capacity, and a three-story structure with a total bed capacity of 154 including thirty-five bassinets was opened September 30, 1944. At present, two interns are in training, but there is no nursing school attached. In 1957, there were 9,342 total admissions.

In 1945, the Legislature passed a bill authorizing two or more townships, cities or villages to incorporate a hospital authority for the purpose of "constructing, improving, operating or maintaining community hospitals." As a result, the People's Community Hospital Authority" was formed in 1945 and in 1947 leased Beyer Hospital and acts as its Board of Trustees.

The Ann Arbor Veterans Administration Hospital was completed in 1953, with 486 beds (no bassinets). It has ten examining rooms, five dental chairs, an x-ray department with deep and superficial therapy room, laboratories, rehabilitation unit, and a surgical unit with nine operating rooms. It has no interns, but approximately thirty-six residents are rotated through the various services from the University Hospital. No nursing school is attached. Last year, there were 1448 medical admissions, 1456 surgical, 57 tuberculosis, 258 neurological and 222 psychiatric, for a total of 3442. Facilities for research are available in general medical, surgical, psychiatric and radio-isotope research. This is being expanded by the construction of an animal laboratory.

The Ypsilanti State Hospital was formally opened July 28, 1931, with 900 beds. It was further expanded in 1937, 1948 and 1954 so that at the present time 4100 patients are being cared for. Present plans call for the addition of a chil-

dren's unit in the near future. Approximately 920 patients, all primarily psychiatric, are admitted each year. During the past several years, the recovery phase has been shortened due to the newer drugs, and the number of patients requiring quiet rooms has been cut to less than a third of the former number.

The hospital has a medical staff of twenty-one, in addition to a medical and a surgical resident from the University Hospital. Through these residents, there is rapid consultation in every phase of medicine and surgery by specialists from the University. The psychiatric residency has been approved by the American Psychiatric Association, and thirteen residents are in training. Teachers from the University give lectures and seminars in neuropsychiatry, neuroanatomy, neuropathology, and neurology. A children's service was established in 1956 under the supervision of a child psychiatrist, and there are now about 150 patients under sixteen in the hospital. Two dentists and two dental assistants give full-time service, and one oral surgeon gives part-time. About 10,000 dental services are given per year.

A three-months nurses' training program, approved by the American Psychiatric Association is utilized by eleven hospitals in the area, and the occupational therapy department trains affiliates from three Michigan schools.

Research facilities are under the direction of a senior staff member and include a joint, five-year research project with the University of Michigan's Mental Health Research Institute, to study the nature of schizophrenia. Other research is in the area of sociological studies, and in the evaluation of different tranquillizing drugs.

The population of Washtenaw County is approximately 150,000, and there are 357 members of the County Medical Society. Of these, eighty-three are associates in training, leaving 274 in active practice, either privately or full time in hospital. This gives an average of one physician to about 550 people, which is better than the average for the state or nation. In addition, there are a few physicians who do not belong to the County Medical Society.

Of the total membership in the Society, only fifty-two are in general practice while 201 are specialists in the various branches of medicine and surgery. The remainder are in associate and other categories of membership. The ratio of general practitioners to specialists is certainly not typical for other counties of the state, and is accounted for by the fact that a great deal of the work is referred, and by the presence in the county of large, specialized state hospitals.

The 5870 hospital beds in the county provide about one bed for every twenty-five people. On the basis of an average of two employees for each patient, it is seen that around 11,000 employees are needed to staff the hospitals. This is a sizable segment of the total work force.

In conclusion, it can be said that Washtenaw County is amply provided with medical and hospital facilities for the care not only of its own residents, but of many from other parts of Michigan.

R. Wallace Teed, M.D.

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HOSPITAL COSTS AGAIN

For the past several years, Michigan has been treated to reports and complaints on hospitals. The costs of our hospitals have been increasing, and about every fifteen or twenty months requests have been made to increase the rates of the Michigan Hospital Service insurance program. Every one of these requests for the past ten years or more has brought criticism from many sources, but primarily from the labor leaders to the effect that "hospitals were making no effort to hold their charges down." In 1956, another request was made for a Blue Cross advance of around 20 per cent. The state insurance commissioner protested—demanding further information. The Governor appointed a commission of prominent citizens, labor leaders, bankers, judicial officials, hospital administrators and others, to determine "why the costs of hospital care should continue to go up" and "to find a method of holding those costs down and yet supplying more adequate hospital service."

This is an old story which we have repeated many times. The Governor's Commission finally issued a report in which they recommended a study be made by certain designated persons at the University of Michigan. There followed many negotiations and requests for funds (even asking Michi-

gan Medical Service and Michigan Hospital Service to contribute to the study) and finally led to the selection of what was considered an unbiased board of investigators and the final provision of money for the study. The Kellogg Foundation of Battle Creek made over $300,000 available when Board members were convinced through action of the Michigan State Medical Society, Michigan Medical Service, Michigan Hospital Association, and Michigan Hospital Service that they not only would all co-operate in this study but would accept its report as final and unbiased.

At the dawning of the new year, radio and newspaper reports from various sources and the University of Michigan news releases indicated that the investigating team at the University of Michigan was ready to commence detailed study and that interviews were being made. The preliminary report on one phase is promised for sometime in June of this year. The complete study is broken up into a number of phases and the final report is promised during the year 1960. It is hoped this report will allay suspicions and allow the public officials, the public, and the subscribers to Michigan health services a chance to secure the most efficient insurance possible at the lowest possible rate.

Remember, Michigan Hospital Service has raised its premium rate twice since the Governor's study was started. There are certain fundamental reasons why hospital costs are on the upgrade. In the early days of Blue Cross and Blue Shield, the length of stay in the hospitals began a decreasing phase, but the number of patients per thousand subscribers sent into the hospitals each year has been constantly increasing. Blue Cross pays these hospital bills on a per diem basis. That per diem was figured out for each hospital annually and adjustments made to correspond with the new figures. Michigan Hospital Service paid the actual cost of operating a hospital plus an added 2 per cent.

Last October, a change was made in this arrangement. It was determined to group hospitals in an area—the larger ones among themselves and the smaller ones among themselves, and to pay them all upon the per diem costs as determined for the group. This idea brought sharp protests in the Grand Rapids area as has been noted in news items. When those protests were published they had a very severe reaction upon the public's already tense feeling about hospitals.

Another fundamental reason for the increase of hospital costs is the fact that the first couple of days in the hospital are the most expensive due to the numerous services rendered—laboratory work, operating room expense, various procedures, anesthesia, x-ray and many other items congregated in the first day or two of hospitalization. On the continuing days (now averaging about 7¾ days per case), the cost dwindles down to custodial care, hall nursing, use of bed and room, meals, bathing, change of bed linen, et cetera.

Another very vital item in the cost of medical care, which the persons who are making the loudest outcry persistently refuse to recognize, is that the expense of operating a hospital is from two-thirds to three-fourths represented by salaries and wages—(labor costs). The other costs have changed very gradually, but labor costs have been increasing rapidly and, even so, are still well below corresponding costs in industry. These costs have progressed every year since the war. Every year, we face newly established wage levels and the constant talk that the cost of labor and the benefits accruing to the worker must continue to increase. Every one of these steps is reflected in the cost of operating a hospital.

Our general public must awaken to the fact that hospital costs are advancing in the same proportion or possibly slightly higher than the cost of living, about equal to the increased cost of labor. We must accept the inevitable and determine to live with it. If the cost of hospitalization is priced out of tolerance or out of the possibility of paying, there is only one answer in sight. We all know what that is, and it would also involve medicine.

REPORT ON HOSPITALS

"An Unofficial Medical Investigation of Hospitals Turns Up Shocking Evidence That Patients Are Being Mistreated, and Urges Some Drastic Reforms. For Its Findings, Turn the Page."

Such is the title of the lead article in *Look* magazine for February 3, 1959, which was delivered to the public on January 20, 1959.

While financial problems get worse and everybody is disturbed, *Look* magazine comes out with a very exciting and most alarming report. It claims to be publishing a secret study made in California which was "suppressed by doctors who found it 'too hot to handle.'" The article consists of published parts of a report which was activated by and grew out of an unusual prevalence of malpractice in certain areas in California. Interviews and

studies were made and reports were written (probably to the California Medical Association) in an attempt to account for the malpractice suits. The abuses and neglect being reported in this article grew out of malpractice cases and the dissatisfaction of patient with doctors, orderlies and nurses. One study was made which prompted another. The second survey went into eight hospitals, four of which had a very large percentage of their doctors suffering from malpractice suits. The other four hospitals of about the same size had very few malpractice suits. To determine why, actions and procedures in these eight hospitals were studied and compared. In all of them was found some dissatisfaction among patients (even months after leaving the hospital), and quite serious tensions between doctors and nurses; in the other group, there was a better feeling, but still some things happening in the hospitals which people did not like—incidents which very probably could happen in any hospital and could be easily resolved.

Included in this article is a "Bill of Rights for Patients" prepared by the California Medical Association, and in the official report are discussed what changes in hospital routine must be made to satisfy the emotional needs of patients.

The research writer, the medical research editor of *Look*, Roland H. Berg, sums up his article as follows:

> "These changes are possible, the report explains, but the initial impulse to get them started must come from the patients themselves. Changes will be made only when patients revolt and, in the words of the investigators, become more trouble in the hospitals . . . . Every patient bears responsibility for seeing that he gets good health care by means of thoroughly unsubmissive and firm demands upon the medical personnel who are paid by him* to provide for these very needs."

This last sentence certainly carries no implication of an attempt to quiet the ruffled waters.

NEW DRESSES

The *Ohio State Medical Society Journal* last year changed its face type into one much more readable, a little larger, and which made a very good impression. With its January 1959 number, it has changed its cover, too, eliminating the outline map of the state of Ohio, putting a color splash across the upper part of the page and putting part of its index of papers on the front page.

Minnesota Medicine, official journal of the Minnesota State Medical Association, is coming out with a new cover, eliminating the advertising which has been on the front pages of so many of our state medical journals.

The Journal of the Indiana State Medical Association for years has used a map of the State, silhouetted against a colored background, with contents imprinted on the white map. Beginning with the September, 1958, number, the outline is very small, to the left with a clear space cut out of the body which contains an attractive colored picture. This is being changed every month.

The *Oklahoma Journal* is continuing a program set up three or four years ago, of publishing a different picture on its cover page each issue, a small picture entirely separate from the large color background.

Congratulations, Sister Medical Journals!

INCOME TAXES

During the month of March we must all think of closing out last year's income tax return and predicting what we shall have to pay in the year to come, the final date for filing being April 15. This brings to mind many things which we as doctors are privileged to do in a manner to reduce our income tax. For a number of years, all doctors of medicine have been urged to subscribe to the American Medical Education Foundation which was established to provide the medical colleges with funds which may be used for many purposes outside their regular budget. In several states, a special assessment is being made, in addition to membership dues, for this purpose. The Michigan State Medical Society has urged our members to contribute as liberally as possible, and a creditable showing has been made.

In addition to sending memorial gifts to the Cancer Fund for victims of cancer, to the Heart Association for heart disease victims, and to the Wayne State University Medical Library in memory of friends who were interested in that endeavor, one could also send contributions to the American Medical Education Foundation. The editor has found that families of departed doctors are very much pleased with such a memorial gift and express themselves as believing that the doctors would have liked nothing better.

There are many other causes which Michigan doctors could remember, such as the University of Michigan Medical School—especially by its gradu-

*Not the hospital.

ates—the Beaumont Memorial for those interested, or the Michigan Foundation for Medical and Health Education. Any one of these would be happy to accept such a bequest. Those contributions sent to the University of Michigan or to Wayne State University could be specified "for research" and could go into any number of projects as determined by the faculty.

Kalamazoo has a most worthy project to which memorial gifts are sent—a Home for Senior Citizens, where needy and worthy elderly people, single or couples, may live and board. Monthly contributions are producing astonishing amounts of money which materially aid this facility.

COMING LEGISLATION

On the national scene, we shall again have two significant questions to consider. The Jenkins-Keogh Bill would allow professional men and other self-employed persons to gain a small measure of benefit similar to the provisions made possible in industry by setting aside certain funds and building up a reserve before taxes. This bill passed the House of Representatives last year but failed in the Senate. Indications are that if pressure is made and the work gets started early, there is a possibility of passing it this year.

A facsimile of the Forand Bill which failed passage in the last Congress will undoubtedly be before us again under another name and will demand our extreme consideration. Members of the medical profession have opposed it because they believed it was a step into government medicine. It proposes to allow the beneficiaries of the social security program who are sixty-five and are drawing benefits, also to have the benefit of hospital and medical attention. In December, the medical profession took action in Minneapolis which holds much more hope of success. The whole medical profession is now proposing a remedy, a service by which suggestions made in the Forand Bill can be given without government stepping into the practice of medicine. About 37 per cent of the 15,500,000 people over sixty-five years of age are now carrying insurance and are able to care for themselves. There is no reason why the government should take care of them. The report adopted by the AMA House of Delegates in Minneapolis suggests that the medical profession set up an insurance program to take care of these older people at reduced premium rates, providing they are in the income group where finances are inadequate and not sufficient to pay medical expenses. These are the people for whom our doctors have always cared with very little thought of remuneration. This new AMA program has been outlined and roughly presented by the Blue Shield Commission. This program will provide for these elderly citizens a means whereby, within the limit of their ability, they are able to pay a proportionate cost of the services which they will need. It is necessary for the medical profession to accept this burden for this limited group of patients rather than allow the federal government to extend that same service to the 15,500,000 people whom they will have to serve, and whom they will cover by some method devised by the politicians and operated by others than doctors of medicine.

WATER AND SALT DEFICITS IN SURGICAL PATIENTS

(Continued from Page 411)

The problem ceases to be one of water and salt maintenance and becomes the prevention of metabolic disintegration from starvation as the total metabolic problem gradually assumes the ascendency. Parenteral water and salt must then be implemented by provision of the maximum amounts of energy calories and protein by any means of sources available. Final resolution of the problem can only be accomplished, however, by restoration of the adequate oral intake of all elements of nutrition.

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Michigan State Medical Society

Annual Session of the Council

January 30-31, 1959

HIGHLIGHTS

- Annual Reports of the Secretary, the Treasurer, and the Editor were presented, thoroughly discussed by Reference Committees and approved (see pages 427, 435).
- The Auditor's Report for the year 1958 and the budgets for 1959 were approved (see page 437).
- Reports of the three standing committees of The Council (County Societies Finance, and Publication), meetings of January 29, 1959, routinely were referred to Reference Committees, and approved with minor amendments.
- Secretary L. Fernald Foster, M.D., Detroit; Treasurer Wm. A. Hyland, M.D., Grand Rapids; Editor Wilfrid Haughey, M.D., Battle Creek, were re-elected for 1959.
- Progress report on Michigan Hospital Service (Blue Cross) was presented by MHS President John N. Lord.
  Progress report on Michigan Medical Service (Blue Shield) was presented by MMS President L. Fernald Foster, M.D.
- Annual reports of individual Councilors on the condition of the profession in their Districts were presented, as per Bylaws provision (Chapter 10, Section 2).
- MSMS Group Life Insurance Plan: Progress report to January 26 was presented by Chairman M. A. Darling, M.D., Detroit—a total of 457 applications had been received in the first five weeks; another letter to the membership, urging participation in this excellent group life program, undoubtedly will result in additional requests for coverage within the next 30 days, assuring a sufficient number for approval by the State Insurance Commissioner to forward the program.
- Report on Social Security poll of MSMS membership: Speaker K. H. Johnson, M.D., presented the following returns, as certified by a special committee of the MSMS House of Delegates:

Total ballots received from MSMS membership	2,829
Favoring Social Security coverage for M.D.'s	1,781
Opposing Social Security coverage for M.D.'s	1,048

- The Michigan State Medical Society voted to co-sponsor the 12th Annual Conference on Aging to be held in Ann Arbor, June 22-24, 1959.
- "Wet Clinics" of the Michigan Heart Association to be held in local areas: This new program of MHA was approved by The Council.
- Simplified Claim Forms developed by Health Insurance Council: A booklet of the HIC was authorized to be sent to all members of the Michigan State Medical Society with a covering letter, inviting attention to these Simplified Claim Forms of HIC as time savers for physicians.
- Michigan Clinical Institute: 1. Three special half hour television shows, sponsored by Upjohn Co. of Kalamazoo, were approved to be presented in Detroit during the days of the MCI. 2. Ubiquitous hosts for awardees at the Testimonial Luncheon of March 12 were appointed.
- World Medical Relief of Detroit was given the approval of the Michigan State Medical Society for its relief work in all parts of the world.

- American Medical Education Foundation: report indicated that, as the result of an enclosure of notice inviting M.D. contributions to AMEF sent with the 1959 MSMS dues billing, 110 Michigan doctors contributed $1,390.00 which was over and above numerous contributions sent directly by M.D.'s to specific medical schools.

- Seven AMA Delegates from Michigan: Due to increase in MSMS membership, AMA Delegate Chairman Wm. A. Hyland, M.D., of Grand Rapids, reported that MSMS is now entitled to its seventh AMA Delegate.

- Cancer Program to the Public: The Council urged the Program Committee of the 1960 Michigan Clinical Institute to consider the subject of cancer for the public television show which will precede the MCI in Detroit.

- Public Relations Counsel's report included analysis of federal and state legislation of interest to the medical profession; progress report on Michigan Association of the Professions; proposed conference for science writers at Michigan State University on April 29 in which MSMS will co-operate; schedule of exhibits at 1959 fairs in Michigan; formation of a "Freedom in Action Group" in Michigan; and list of twenty-nine service club speakers during the Michigan Clinical Institute.

- Increasing number of doctors of medicine in Michigan. A. C. Furstenberg, M.D., Ann Arbor, Dean of the University of Michigan Medical School, presented a most informative talk, illustrated by lantern slides, on ways and means of increasing the number of doctors of medicine in this State. He invited the help and impetus of the Michigan State Medical Society to achieve this desired result. The Dean praised the work of the National Fund for Medical Education and the American Medical Education Foundation for monetary contributions to medical schools over the years (including the individual contributions of doctors of medicine). His presentation was discussed by O. K. Engelke, M.D., Ann Arbor, President of the Michigan Health Council, who reported on the success of the MHC's Doctor Placement Service.

- The Pharmaceutical Manufacturers Association establishment of a National Council for the Advancement of Medical Research and Education—to gain more trainees in the scientific field—was given support and cooperation by The Council.

- Matters of mutual interest were discussed with A. E. Heustis, M.D., Michigan Health Commissioner, including six budgetary items of the Department of Health; radiation protection; hospital licensing; reorganization of the State Department of Health; tuberculosis beds.

- Jay C. Ketchum. The monumental work on behalf of the Michigan State Medical Society and the medical profession of Michigan during the past seventeen years, rendered by the Executive Vice President-General Manager of Michigan Medical Service (Blue Shield), who is leaving Detroit for a position in Chicago, March 1, was recognized by The Council which decreed that a suitable resolution be spread on the minutes of The Council expressing appreciation to Mr. Ketchum for his untiring efforts and his indelible imprint on Michigan medicine, that an Award be made to Mr. Ketchum on the occasion of the Testimonial Luncheon during MCI, on March 12, and that The Council nominate Mr. Ketchum for Honorary Membership in the Michigan State Medical Society.

- Special supplements of The Journal were authorized as follows: (a) the directory edition; (b) the House of Delegates edition; (c) the officers and committee edition. Also recommendation for typographical refinements in JMSMS were referred to the Editor and the Chairman of the Publication Committee with suggestion that these improvements be put into effect if the costs are met by increased revenue; improvements that can be carried out without increased revenue are to go into effect immediately.

- Research material on maternal deaths. Francis A. Jones, M.D., Lansing, Chairman of the Maternal Health Committee, outlined to The Council his Committee's recommendation that a series of six proposed short articles for JMSMS be presented as information to the membership; this recommendation was approved and the papers are to be reviewed by the Publication Committee and Legal Counsel.

- Thanks were extended by The Council to Wm. T. Coulter, St. Paul, President of Bruce Publishing Company, for his flying to Lansing to advise the special committee on developing typographical refinements in JMSMS.

- Monthly reports of Council Chairman D. Bruce Wiley, M.D., Utica; President G. B. Saltonstall, M.D., Charlevoix; President-Elect M. A. Darling, M.D., Detroit; Secretary L. Fernald Foster, M.D., Detroit; Speaker K. H. Johnson, M.D., Lansing, were presented and accepted.

- Committee reports were presented by (a) Child Welfare Committee, meeting of December 4, plus meetings of six sub-committees; (b) Committee to Review Problem of Medical Professional Liability, January 29; (c) Medical Care Insurance Committee, January 7; (d) Advisory Committee to Michigan State Medical Assistants Society, December 7; (e) Rheumatic Fever Control Committee, December 10; (f) Tuberculosis Control, December 10; (g) Mental Health, December 17; (h) Postgraduate Medical Education, January 15; (i) Liaison with Health Insurance Council, January 21; (j) Legislative Committee, January 22; (k) Committee to Study Greater Participation in Blue Shield, January 22; (l) Committee on Scientific Work, January 23; (m) Committee on Big Look, January 29.

  Reports of the following committee meetings also were presented to The Council as information: (1) Medical Advisory Committee to Michigan Hospital Service, November 19; (2) North Central District Blood Bank Board of Directors, December 12; (3) Psychiatric Nursing Committee, December 16; (4) Permanent Conference Committee, January 14; (5) Michigan Cancer Coordinating Committee, January 22; (6) Permanent Advisory Committee on Fees, January 20, (a committee of the House of Delegates); and reports on several Councilor District Medical Care Insurance Committee meetings held in various Districts of the state.

- Appointments: (1) Committee to Study AMA Commission on Medical Care Plans Report, as presented to AMA House of Delegates in Minneapolis December, 1959: J. S. DeTar, M.D., Milan (committee of one); (2) Committee on Arrangements for Resident-Interne-Senior Medical Students Conference to be held March 12 in Detroit during MCI: William Bromme, M.D., Detroit, Chairman, Lee Roy Jones, M.D., Detroit, Thomas Scott, M.D., Ann Arbor, R. F. Staudacher, Chicago, C. W. Sellers, M.D., Detroit, and Harvey C. Hallum, Evansville, Indiana (advisor); (3) Added to Committee to Study Feasibility of Greater Participation in Blue Shield: J. M. Wood, M.D., Mt. Pleasant, and J. W. Rice, M.D., Jackson; (4) Planning Committee of Joint Conference on Staphylococcus Infections: E. M. Vardon, M.D., Detroit, Chairman, E. G. Merritt, M.D., Detroit, and J. W. Rice, M.D., Jackson; (5) Added to Committee on Alcoholism: R. H. Pino, M.D., Detroit; (6) Added to Committee on National Defense: E. M. Fugate, M.D., Muskegon and T. I. Boileau, M.D., Birmingham; (7) Added to Committee on Rural Medical Service: Robert E. Paxton, M.D., Fremont; (8) Added to Fourteenth District CDMCIC: Allen Saunders, M.D., Ann Arbor; (9) Added to Special Committee on V.A. Home Town Medical Care Program: L. Gordon Goodrich, Detroit; (10) MSMS nominees to State Committee on Scholarships of the National Foundation: A. J. Day, M.D., Wm. H. Blodgett, M.D. and Frederick J. Fischer, M.D., all of Detroit; (11) MSMS

representative to National Health Forum, Chicago, March 17-19: Sherman E. Andrews, M.D., Kalamazoo.

- Ground breaking ceremony for the new MSMS headquarters building was set for Wednesday, April 1, 1959, at 5:00 p.m. at the site, M-78 (Saginaw Street) and Abbott Road, East Lansing: this ceremony will follow an all day meeting of the Executive Committee of The Council.
- Due to the anticipated great volume of business, The Council recommended to Speaker K. H. Johnson, M.D., Lansing, that an extra meeting of The House of Delegates be held on Sunday evening, September 27, 1959.
- VA Home Town Medical Care program: matters of adjustment in the fee schedule and other problems were referred to the special ad hoc Committee, to Review and Renegotiate the VA Home Town Medical Care Fee Schedule, with power to act. Recommendations of this committee will be reported to the Permanent Advisory Committee on Fees.
- Uniform Fee Schedule for Governmental Agencies: report was presented that the House of Delegates' Permanent Advisory Committee on Fees (Grover C. Penberthy, M.D., Detroit, Chairman) had accepted the action of The Council that the new Uniform Fee Schedule for Governmental Agencies be based upon the existing Michigan Relative Value Scale and those unit values applicable to the $2,500 Plan A M-75 contract.

  The request of the Michigan Society of Internal Medicine that it be consulted before new fee schedules are adopted was referred to the Permanent Advisory Committee on Fees.
- The MSMS Medical Care Insurance Committee (Max L. Licher, M.D., Detroit, Chairman) and its Subcommittee on Relative Value Scale (Luther R. Leader, M.D., Detroit, Chairman) were instructed to develop a Michigan Relative Value Scale as quickly as possible.

SECRETARY'S ANNUAL REPORT—1958

TO: The Council of the Michigan State Medical Society:

I herewith submit the annual report of the Secretary for the year 1958.

MEMBERSHIP

The Michigan State Medical Society membership for 1958 showed a total of 6,638 members including 84 Retired, 311 Life and Emeritus, 377 Associate, 52 Military and 1 non-Resident member. The total paid membership was 5,813 with net dues of $342,775.30. The 1958 membership once again established a new record for the Society. The number of members with unpaid dues for 1958 was 50.

DEATHS DURING 1958

I must regretfully report a total of seventy-one deaths among members during the past year.

Alpena County—Ernest L. Foley, M.D., Alpena

Barry County—Robert B. Harkness, M.D., Kennett Square, Pa.

Bay County—John H. McEwan, M.D., Bay City; George W. Moore, M.D., Bay City; Relza Newton Sherman, M.D., Bradenton Beach, Fla.

Berrien County—Franklyn A. Rice, M.D., Niles.

Calhoun County—Clarence S. Gorsline, M.D., Battle Creek; Charles W. Heald, M.D., Battle Creek; Henry A. Herzer, M.D., Alma; Theodore Kolvoord, M.D., Battle Creek; Archibald E. MacGregor, M.D., Battle Creek; Clarence M. Mercer, M.D., Battle Creek; Frank W. Schwarz, M.D., Battle Creek.

Chippewa County—Clayton Willison, M.D., Sault Ste. Marie.

Genesee County—Sydney I. Foley, M.D., Flint; George W. Logan, M.D., Hastings; Gordon L. Willoughby, M.D., Flint.

Gogebic County—Charles E. Stevens, M.D., Ironwood.

Gratiot County—Lewis J. Burch, M.D., Mt. Pleasant; Russell H. Strange, M.D., Mt. Pleasant.

Ingham County—Charles P. Doyle, M.D., Lansing; Cyrus B. Gardner, M.D., Lansing; Cameron D. Keim, M.D., Lansing; Earl M. McCoy, M.D., Grand Ledge; Claude V. Russell, M.D., Lansing; Andrew G. Stanka, M.D., Grand Ledge.

Ionia County—E. R. Swift, M.D., Lakeview.

Kalamazoo County—U. Sherman Gregg, M.D., Kalamazoo; William E. Shackleton, M.D., Kalamazoo.

Kent County—Charles W. Brayman, M.D., Cedar Springs; Mortimer E. Roberts, M.D., Grand Rapids.

Lapeer County—J. Orville Thomas, M.D., North Branch.

Lenawee County—A. S. Pasternacki, M.D., Adrian

Macomb County—Russell W. Ullrich, M.D., Mt. Clemens.

Marquette County—Celestin LeGolvan, M.D., Marquette; Isaiah Sicotte, M.D., Michigamme.

Menominee County—Henry T. Sethney, M.D., Menominee.

Oakland County—Earl W. Foust, M.D., Royal Oak.

Tuscola County—Frank L. Morris, M.D., Cass City.

Washtenaw County—Aaron R. Edwards, M.D., Ann Arbor.

Wayne County—Frederick E. Baker, M.D., Detroit; Charles S. Ballard, M.D., Detroit; James I. Baltz, M.D., Detroit; Philip H. Broudo, M.D., Detroit; Stanley E. Condon, M.D., Grosse Pointe Woods; John P. Connolly, M.D., Detroit; Russell G. Cushing, M.D., Detroit; James C. Danforth, Sr., M.D., Grosse Pointe Woods; Samuel G. Epstein, M.D., Detroit; Bert U. Estabrook, M.D., Detroit; Ray L. Fellers, M.D., Detroit; Lawrence J. Gravelle, M.D., Detroit; Hugh W. Hendry, M.D., Detroit; Daniel R. Herkimer, M.D., Lincoln Park; S. Lee Hileman, M.D., Ecorse; Alfred E. Hillenbrand, M.D., Detroit; Abraham Koven, M.D., Detroit; Willard D. Mayer, M.D., Detroit; Donald H. McRae, M.D., Detroit; John Ralyea, M.D., Highland Park; Earnest C. Roseborough, M.D., Detroit; Frank W. J. Stafford, M.D., Detroit; Henry B. Steinbach, M.D., Delray Beach, Fla.; Max Steiner, M.D., Detroit; Harry L. Stern, M.D., Detroit; Clarie L. Straith, M.D., Detroit; Hymen A. Vogel, M.D., Garden City; Joseph E. G. Waddington, M.D., Detroit; Roger V. Walker, Jr., M.D., Detroit; Joseph G. Weiss, M.D., Pontiac; Randall A. Whinnery, M.D., Detroit.

ORGANIZATIONAL ACTIVITIES

1958 ANNUAL SESSION

This past year the Annual Session was held in Detroit with a gratifying total attendance of 4,103. This includes 2,339 doctors of medicine, 809 from affiliated groups, 567 exhibitors, 379 guests. The General Assembly type of program was continued, with the innovation of two very successful panels.

A recommendation on this subject follows.

MICHIGAN CLINICAL INSTITUTE

The twelfth Michigan Clinical Institute was held in Detroit, March 19-20-21, 1958. Total registration was 2,988 including 949 from affiliated groups, 216 guests and 397 exhibitors. Again the Operating Room Nurses Conference was held in conjunction with the MCI as well as the Seminar for Residents, Interns and Senior Medical Students. Michigan's Foremost Family Physician, two members of the Michigan State Medical Society serving as presidents of national medical associations, and ten other honorees received special awards for distinguished services to medicine and the people of Michigan at a testimonial luncheon held during the MCI.

ANNUAL SECRETARIES-PUBLIC RELATIONS SEMINAR

In 1958 the County Secretary's-Public Relations Seminar was held on February 1-2 in Detroit and was attended by 210. Seventy-one per cent of the component society secretaries were present.

SECRETARY'S LETTERS

As part of the Society's general educational and informational program for individual members and for component County Societies, during the year 1958 six Secretary's Letters, here issued, three to all members and three to County Society officers. These informational bulletins were in addition to the monthly issues of THE JOURNAL with its scientific articles and informative news items. In addition, ten Legislative Bulletins were issued to keymen during the 1959 Legislative Sessions to keep the membership informed of activities in the State Legislature pertaining to the practice of medicine.

COMMITTEES

Again, time and space preclude the listing in detail of the many activities of all the committees contributing to the splendid programs of the State Society. The accomplishments of the committees of the Society were achieved at the expense of many hours of personal sacrifice on the part of their M.D. personnel. During 1958, a total of 97 meetings were held by our fifty-eight committees. Practically every meeting was covered by your Secretary, Executive Director, or some staff member.

A total of 649 Society members gave freely of their time to attend these meetings and assist in the operational activities of the State Society. Too much commendation cannot be accorded the committee members who contributed generously to develop and execute constructive programs—both scientific and economic for the public welfare and to maintain the position of leadership enjoyed by the Michigan State Medical Society in the field of progressive medical planning.

NEW SERVICES FOR MEMBERS

Upon invitation, MSMS has been sending representatives to other state and national medical and health meetings for a number of years. One advantage to be gained by MSMS is to learn formally from its representatives of any *new* services being rendered by these societies for their members. Properly filtered and recommended, these new activities might be adapted to and adopted by the MSMS. A systematic appraisal, by a special committee, of the values to be gained from attendance at these meetings is indicated.

A recommendation on this subject follows.

FINANCES

An audit of the Society's books covering twelve months was completed by Knostman & Smith as of November 30, 1958. This has been submitted to the Finance Committee for study and is available to any member of the Society for perusal at the Executive Office, 606 Townsend Street, Lansing, Michigan. A brief summary of the audit produces the following information:

Assets	
Cash	$ 56,138.56
Accounts Receivable	26,747.96
Investments	246,177.80
Property & Equipment	124,289.93
Other Assets	186.41
Total Assets	$453,540.66
Liabilities	
Accounts Payable	$ 14,486.92
Society Equities	
(Reserved for special purposes)	
Public Education Reserve	$ 91,165.25
Public Education Program	17,677.72
Public Service Account	5,409.09 CR
Professional Relations Account	2,463.45 CR
Rheumatic Fever Control Program	1,879.18
Contingent Fund	53,614.34
Building Maintenance Fund	22,195.41
New Headquarters Fund	85,373.04
General Society Equity	175,021.34
	$439,053.74
Total Liabilities & Equities	$453,540.66

THE JOURNAL

The following financial information relative to THE JOURNAL is found in the annual audit report of Knostman & Smith. Income was $134,433.18 which is $23,821.18 over the estimated budget for 1958 (this included $8,526.25 from all allocations of members' dues). Expenses were $135,429.02 which was $7,059.02 over the estimate for 1958. These figures result in a net gain for the year of $9,004.16.

1958 HOUSE OF DELEGATES

The 93rd Annual Session of the Michigan State Medical Society's House of Delegates was held in Detroit, September 28-29-30, 1958.

The House of Delegates:

1. Adopted with thanks the Speaker's remarks; the President's remarks; the President-Elect's remarks; the report of Delegates to the American Medical Association; the report of Woman's Auxiliary to Michigan State Medical Society; the report of the Michigan State Medical Assistants Society; and the Michigan Medical Service report.

2. Approved the Annual Reports of The Council including recommendations (a) to erect a new MSMS headquarters building; (b) to institute a group life insurance plan for MSMS members; and (c) urging members to voluntarily contribute to the American Medical Education Foundation. The Annual and Supplemental Reports of Committees of The Council were approved.

3. Adopted Annual Reports of two House of Delegates Committees: (a) Permanent Advisory Committee on Fees; and (b) Committee on Committees.

4. Adopted Annual Reports of all Standing Committees and of all Special Committees of the Society.

5. Approved the Annual and supplemental Annual Reports of the Medical Care Insurance Committee, as well as the report of the special Auditing Committee on Seal of Assurance which indicated that the total number of participating contracts in force was 3,913.

The Medical Care Insurance Committee, charged with the responsibility of implementing the Statement of Principles on Prepaid Medical Care adopted by the 1957 House of Delegates, recommended the endorsement of the new Michigan Medical Service contract (M-75) as complying in every detail with the MSMS Statement of Principles, which recommendation was approved by the 1958 House of Delegates. Following is an extract from the MCIC Annual Report: "To assure a closer liaison between practicing physicians, Michigan State Medical Society, and the carrier (Blue Shield), MCIC has developed the work and responsibilities of Councilor District Medical Care Insurance Committees as directed by the Statement of Principles. These local committees have been appointed by The Council and their activity during the coming year will be coordinated with the work of the MSMS Medical Care Insurance Committee. By this and others means, a continuing review of the Seal of Assurance Plan will be made and a direct line of communication established from the individual Doctor of Medicine to the MCIC, the Permanent Advisory Committee on Fees, and The Council." The Delegates are to be informed quarterly of the progress made by the mechanism set up and in operation for the instrumentation of the program.

The MCIC was directed to develop the Michigan Relative Value Scale. The MCIC recommended that presentations of its Supplemental Report (published in toto in December Number, JMSMS), illustrated by slides, be made available to all component societies.

On the subject of payment, of non-participating physicians: the House of Delegates adopted a substitute motion which stated:

"That recompense for services rendered to a patient under Michigan Medical Service contracts continue to be the same, whether the physician is participating or non-participating. The participating physician will be paid directly by Michigan Medical Service. The non-participating physician will also be paid by Michigan Medical Service upon obtaining an assignment from his patient.

"That because the problem of direct payment to non-participating physicians for services rendered to subscribers involves complex questions of law and equally complex questions pertaining to the honoring of existing contracts and contract offerings by Michigan Medical Service, a complete study of alternate methods of payment for services rendered by non-participating physicians be undertaken by the Medical Care Insurance Committee in conjunction with Legal Counsel for MSMS, and that such study be diligently pursued; and that as soon as the Committee is able to submit its findings based upon such study, its findings and recommendations shall be submitted to the next regular or a special meeting of the House of Delegates called for that purpose."

The House of Delegates requested the governing body of Michigan Medical Service, and of any other approved carrier, that lists of participating physicians shall not be published or otherwise disseminated. The House of Delegates adopted a resolution that the problem of the care of mental illness as a benefit under Michigan Medical Service and Michigan Hospital Service contracts be called to the attention of the Board of Directors of MMS and MHS for their careful consideration.

The Permanent Advisory Committee on Fees (of the House of Delegates) was instructed to work with The Council when the House was not in session, and all decisions of The Council regarding fees are to be reported to the Permanent Advisory Committee on Fees. Further, all minutes of proceedings of all committees dealing with fees and fee schedules are to be referred to and made available to the Permanent Advisory Committee on Fees promptly.

6. Adopted resolutions concerning: (a) fund raising —approved federated or otherwise; (b) alphabetical listing of members; (c) no objection to sponsorship of AAPS essay contest; (d) poll of members on Social Security; (e) distribution of free polio vaccine to medically indigent; (f) proposed legislation for control of medical staff in public hospitals; (g) creating study committee on alcoholism; (h) no House of Delegates meeting to be held on Sunday, unless necessary; (i) proposed law to regulate operation of ambulances; (j) greater interest in diabetes detection; (k) resolutions expressing appreciation to retiring AMA Delegate W. H. Huron, M.D., Iron Mountain, to retiring Councilor J. F. Beer, M.D., St. Clair, and to Michigan Office of Civil Defense Director Ralph M. Sheehan and his staff.

7. Took favorable action on proposal to amend the Bylaws (Chapter 5, Section 6) clarifying Life Membership qualifications.

8. Took no action on the following proposals: (a) Two-thirds membership vote shall constitute favorable referendum of MSMS; (b) repeal of Statement of Principles covering Blue Shield contract; (c) termination of sale of Blue Shield M-75 contract; (d) suspension of sale of Blue Shield M-75 contract; (e) rules of conduct for physicians in closed panel practice; (f) re-affirming Statement of Principles of 1957 House of Delegates.

9. Disapproved the following resolutions: re (a) medical representation when management-labor negotiates medical services; (b) study of method to allot proportional units when medical service is provided by more than one physician; (c) responsibility for treatment of diabetes mellitus; (d) one full day for reference committee meetings of House of Delegates; (e) proposed amendment to Bylaws, Chapter 16, Section 1, re date of suspension for nonpayment of dues; (f) proposed amendment to Bylaws, Chapter 5, Section 4 and 6, re Special Memberships; (g) proposed amendments to Bylaws, Chapter 12, Section 1, re term of Councilors—a study committee on this subject was recommended.

The sponsor of a resolution recommending that members of Blue Shield Board of Directors be representative of MSMS Councilor Districts was referred to Michigan Medical Service.

10. Elected the following officers:

(a) C. N. Hoyt, M.D., Port Huron, as Councilor, 7th District (1962).

(b) W. M. LeFevre, M.D., Muskegon, as Councilor, 11th District (1963)

(c) B. T. Montgomery, M.D., Sault Ste. Marie, as Councilor, 12th District (1963).

(d) T. P. Wickliffe, M.D., Calumet, as Councilor, 13th District (1963).

(e) W. W. Babcock, M.D., Detroit, as Councilor, 17th District (1963).

(f) R. L. Novy, M.D. (1960), W. D. Barrett, M.D. (1960), both of Detroit, and G. W. Slagle, M.D. (1960), Battle Creek, as Delegates to the American Medical Association.

(g) Luther R. Leader, M.D., Detroit (1960); Wm. Bromme, M.D., Detroit (1960), and Ralph W. Shook, M.D., Kalamazoo (1960), as Alternate Delegates to the American Medical Association.

(h) Milton A. Darling, M.D., Detroit, as President-Elect.

(i) K. H. Johnson, M.D., Lansing, as Speaker of the House of Delegates.

(j) J. J. Lightbody, M.D., Detroit, as Vice-Speaker of the House of Delegates.

11. Elected Fred J. Drolett, M.D., Lansing, as Michigan's Foremost Family Physician for 1958.

12. (a) Selected R. W. Pomeroy, M.D., Lansing, as Michigan's nominee for President's Award on Employment of Physically Handicapped; (b) Presented Fifty Year Awards to:

William J. Cassidy, M.D., Detroit; Wayne A. Cochrane, M.D., Jackson; Fred H. Cole, M.D., Detroit; Clayton J. Ettinger, M.D., Detroit; Samuel Glassman, M.D., Detroit; Bernard H. Glenn, M.D., Fowlerville; Lloyd W. Howe, M.D., Marquette; Mark Marshall, M.D., Ann Arbor; J. Earl McIntyre, M.D., Lansing; Harriet E. McLane, M.D., Detroit; Daniel J. O'Brien, M.D., Lapeer; J. M. Robb, M.D., Detroit; Susanne M. Sanderson, M.D., Detroit; Leal K. Slote, M.D., St. Joseph; Andrew L. Swinton, M.D., Marquette; Henry L. Ulbrich, M.D., Grosse Pointe Woods; and Paul Van Riper, M.D., Champion.

13. Elected to Special Memberships:

(a) *Forty-two to Life Membership*—Alpena County: Harry J. Burkholder, M.D.; Genesee County: Arthur C. Blakeley, M.D., Leon M. Bogart, M.D., Guy D. Briggs, M.D., Edwin G. Dimond, M.D., Roy A. McGarry, M.D., Ira D. Odle, M.D., William W. Stevenson, M.D., George D. Sutton, M.D., Grant Thorburn, M.D., Inga W. Werness, M.D.; Jackson County: Corwin S. Clarke, M.D., W. B. Huntley, M.D.; Kent County: Jacob D. Mulder, M.D.; Muskegon County: Martha Goltz, M.D., Vilda S. Laurin, M.D.; Northern Michigan Counties: James R. Stringham, M.D.; St. Clair County: T. H. Cooper, M.D.; Shiawassee County: Carleton A. Harkness, M.D.; Washtenaw County: Margaret Bell, M.D.; Wayne County: Mary B. Campbell, M.D., James A. J. Hall, M.D., Frederik E. Hansen, M.D., Arthur B. Henderson, M.D., Thomas G. Amos, M.D., Glenn B. Carpenter, M.D., Lona B. Carroll, M.D., Albert E. Catherwood, M.D., Thomas P. Clifford, M.D., Margarete W. Coleman, M.D., L. C. M. Conley, M.D., Harry F. Dibble, M.D., Raymond S. Goux, M.D., Leo E. Grajewski, M.D., Robert I. Greenridge, M.D., Daniel J. Leithauser, M.D., Leon E. Pangburn, M.D., Alvord R. Sanderson, M.D., Ward F. Seeley, M.D., F. Janney Smith, M.D., Viola M. Young, M.D.; Wexford County: W. J. Smith, M.D.

(b) *Fifteen to Retired Membership*—Bay County: Walter S. Stinson, M.D.; Ingham County: Robert S. Breakey, M.D.; Saginaw County: E. G. Schaiberger, M.D.; Muskegon County: A. W. Mulligan, M.D.; Wayne County: Harvey S. Broderson, M.D., Schuyler O. Cotton, M.D., Hugo O. Dietzel, M.D., Arthur L. Higbee, M.D., Hartman A. Lichtwardt, M.D., Walter E. McGillicuddy, M.D., John McKinnon, M.D., Julius Michels, M.D., Charles W. Peabody, M.D., Loren W. Shaffer, M.D., and Alexander M. Stirling, M.D.

(c) *Twenty-two to Associate Membership*—Oakland County: Dorothy M. Goerner, M.D., Edwin S. Peeke, M.D.; Saginaw County: Raymond W. Dowidat, M.D., Robert D. Rector, M.D., James G. Kidd, M.D., Randall S. Derifield, M.D., Russell E. Pleune, M.D.; Wayne County: Dorothy Caton, M.D., Daniel Donovan, M.D., L. E. Kamin, M.D., Harry Kirschbaum, M.D., Frances L. MacCracken, M.D., Louis J. Morand, M.D., Harold Ohrt, M.D., Eugene Secord, M.D., Gerald Shortz, M.D., Mary Stellhorn, M.D., Carl G. Weltman, M.D., Leslie Wilcox, M.D., Abraham R. Lincoln, M.D., Vincent Mancuso, M.D.; Muskegon County: E. V. Williams, M.D.

OTHER ORGANIZATIONAL ACTIVITIES

MICHIGAN MEDICAL SERVICE

Financial.—Final figures for the year 1958 are not available as of this date. The Tentative Balance Sheet as of November 30 indicates:

	1958	*1957*
Assets of	$11,379,952.68	$13,840,030.79
Liabilities of	10,651,805.37	10,632,501.50
Reserve for Contingencies	$ 728,147.31	$ 3,207,529.29

The Assets as of December 31, 1957 were $14,291,642.56 or a decrease for the eleven months of $911,689.88.

The Reserve for Contingencies as of December 31, 1957 was $4,236,991.35 or a reduction of the Reserve for the eleven months of 1958 of $3,508,844.04.

	11 Months 1958	*11 Months 1957*
Loss from Operations	$3,802,761.09	$2,919,402.54
Miscellaneous Income (Gain)	(7,107.82)	(18,690.90)
Investment Income (Gain)	(286,809.23)	(295,928.33)
Total Loss	$3,508,844.04	$2,604,783.31

It is estimated that the subscription fee income for the year 1958 will be as follows:

Estimate of subscription fee income for 1958	$49,102,000.00
VA Fees and expense reimbursement	1,089,000.00
Medicare Fees and expense reimbursement	935,000.00
	$51,126,000.00
Payments for services rendered subscribers for the year 1958 will be approximately	$49,062,000.00
For Veterans	1,057,000.00
Medicare	915,000.00
Estimated Total Payments	$51,034,000.00

This is an average per month of $4,252,830.00 as compared with $3,776,315.00 in 1957.

The dollar of subscription income is divided approximately in cents as follows:

	1958	*1957*	*1956*	*1955*	*1954*
Services to Subscribers	99.93c	98.54c	97.78c	91.34c	90.66c
Administration Expense	8.52	8.48	7.80	8.68	8.83
Reserve for Contingencies (loss)	(8.45)	(7.02)	(5.58)	(.02)	.51

The decrease in reserve for contingencies of $3,508,844.04 for the eleven months of 1958 resulted from increase in services under all contracts.

Subscription rates were increased overall by 12% effective October 1, 1957. It was anticipated that this increase would be sufficient to put the old $2,500 and $5,000 contracts on a satisfactory basis. It was also thought that the new M-75 plan contracts would be effective early in 1958. Due to decreased employment and an increase in utilization plus that fact that the M-75 Plans were not offered to the public until August 1, 1958, the financial relief anticipated did not result.

Subscription rates for the old $2,500 and $5,000 contracts were increased January 1, 1959 by an overall of 12.8%. The increase on these contracts should put them on a sustaining basis. We are assured by our own statisticians and actuaries that the rates for the M-75 program are actuarially sound.

Payment for Services.—There is an increase in incidence of service for the first six months of 1958 as compared to the first six month period of the previous years as shown. Services per 1,000 subscribers are as follows:

	1958	*1957*	*1956*	*1955*	*1954*
First six months	30.17	28.46	26.70	23.93	22.94
Average cost per service is as follows:					
First six months	$32.45	$35.69	$35.36	$32.74	$33.25

The increase in incidence of services for the first six months of 1958 as compared to the same period of 1957 appears to have been caused by a greater utilization of

all services under all types of contracts. The average cost of services, however, decreased in 1958; and this decrease to some extent, is due to the Office Surgery Liberalization effective October 1, 1957.

During the first eleven months of 1958 payments were made for 1,383,526 services under our basic contracts. In addition, there were 107,132 payments made under the X-Ray EKG Rider as well as 15 payments under the 245 Day Medical Rider.

Enrollment.—November 30, 1958 statistics indicate 3,560,059 persons were protected by Blue Shield in Michigan.

These persons were protected under the several different types of contracts issued by Michigan Medical Service. The following table shows the distribution:

	Members
$2,500 Family Income Certificate	
Surgical	374,593
Medical-Surgical	1,038,040
Total	1,412,633
$5,000 Family Income Certificate	
Surgical	359,082
Medical-Surgical	1,737,240
Total	2,096,322
M-75 Certificates	
Plan A	4,178
Plan B	22,551
Plan C & D	24,375
Total	51,104
Grand Total	3,560,059

The Enrollment Division has been pursuing a diligent program of converting all existing members to the new M-75 series. A recent study indicates that as of mid January, 1959, there are approximately 1,150,000 people in Michigan who are now protected by benefits under this series of certificates. Each working day, additional members are converted from the old series to the new and all new groups not heretofore enrolled are being offered only the M-75 certificates. The impact of 1,150,000 people was brought about primarily when the Big Three of the motors industry accepted the benefits of the M-75 series effective January 1 of 1959.

The acceptance of the Michigan State Medical Society's new approach to the manner of covering medical care has not only been accepted by General Motors, Ford and Chrysler, but is equally true of other employer groups and their employes as indicated in the following example: United States Post Office—Clark Equipment Company—Grand Trunk Western Railway—Eaton Manufacturing Company—Reo Motors—Ethyl Corporation—Kelsey-Hayes Company—Battle Creek Board of Education—Michigan State Department of Revenue.

Professional Relations Activities for 1958.—The year 1958 was the most active period experienced by the Professional Relations Staff of Michigan Medical Service. Communicating M-75 policy decisions of the Michigan State Medical Society and of the Board of Directors of Michigan Medical Service to the physicians of Michigan demanded many extra hours of each staff member in attending various hospital staff, county society and other medical group meetings. The year's experience proved that face-to-face discussion is the most effective method of communication—and was used at every opportunity. The results of this effort were more than gratifying as the number of M-75 participating doctors will show. (432 participants obtained through personal contact by staff.)

From the time the 1957 House of Delegates concluded its work on establishing the Principles for prepayment medical care plans, the Michigan Medical Service staff initiated meetings with every conceivable group of physicians for the purpose of explaining the basis on which a new Blue Shield contract would be constructed. More than 225 such meetings were held prior to the beginning of the MSMS "Seal of Assurance" campaign in June of 1958. The campaign inspired several repeat performances as well as meetings with physician groups not contacted previously. Staff members also participated actively in the Councilor District Conferences of the MSMS which acted as "kick off" meetings for the campaign.

Since the principal concern of the Profesisonal Relations Staff is to desseminate Blue Shield and medical economics information to Michigan doctors through personal contact, it is our duty to see that the staff becomes as well informed as possible in this regard. Besides the numerous information reports and trade publications sent to them for study, each staff member is required to attend the MSMS Secretary's Conference in Detroit, the regular and special open meetings of the MSMS House of Delegates, the Annual meeting of the Michigan Medical Service Corporation and the educational programs put on by the Blue Cross-Blue Shield Enrollment Division. On an alternating basis, half of the Staff goes each year to the National Blue Shield Professional Relations Conference in Chicago. Also, during 1958, all representatives attended three separate meetings devoted entirely to staff activity, as it is constituted here in Michigan.

Other activities included exhibiting at the MSMS Annual Session, the Michigan Clinical Institute, the Annual Conference of the Michigan Academy of General Practice and the Annual meeting of the Upper Peninsula Medical Society. The regular attendance of representatives at County Medical Society monthly meetings was extended to 44 Societies out of the total of 55 in the State.

This year as in previous years, the Wayne County Medical Advisory Committee adjudicated fees for approximately 2,200 cases of complex and unusual nature. The Kent County Medical Advisory Committee, established two years ago, determined fees for approximately 500 cases of a similar nature. The Kent County group met 10 times during the year and the Wayne County Committee met 23 times.

In January, 1958, the physicians of Michigan were introduced to a new media of communication from Michigan Medical Service. *The President's Letter*, a monthly publication of pertinent data and trends in medical economics, is now one year old. This Letter has received praise from doctors in all corners of the State. The value of the Letter is indicated each month by the correspondence that comes in after each mailing. Most noticeable are the letters, stating opinions or asking questions about the latest issue, which come from doctors we have rarely, if ever, heard from in the past. The Letter is designed to be brief, to the point and informative on subjects the average physician wants to know more about. It is not, however, the intent of Michigan Medical Service to publish this Letter just to meet the monthly deadline. If there is no news, report or explanation worthy of distributing, publication will be postponed until there is something to be said. So far, events centered around M-75, the Forand Bill, problems of other Blue Shield Plans, etc., have supplied ample material for discussion.

A Professional Relations activity which will take on a new, accelerated approach in 1959 is the activity with the Medical Assistant Societies and other group meetings of doctor's office personnel. Tentative plans call for an extensive educational program on the administration of M-75 from the point of view of the doctor's office. Where the Assistants' Society is inadequate to obtain the exposure desired, invitations to Medical Assistants to attend meetings will be made through hospital staffs and county medical societies.

Following, in tabulated form, are reports on: "Record of Activity of the Professional Relations Staff During 1958," and "Record of New Participation Obtained in 1958 by Michigan Medical Service Staff."

I. *RECORD OF ACTIVITY OF THE PROFESSIONAL RELATIONS STAFF DURING 1958*

Doctor Contacts:	
In offices	9,131
At Cloakrooms of Hospitals	6,353
At Meetings	8,600
Miscellaneous	3,050
Doctor Meetings Attended:	
Hospital Cloakroom	780
Hospital Staff	228
County Society	240
Specialty Society	25
Doctor Assistants Contacts:	
In Doctors' Offices	2,545
Number of Assistant Society Meetings Attended	31
Other Contacts by Staff:	
Clinics	190
Hospital Administration and Credit Offices	1,118
BC-BS Enrollment Meetings	32
BC-BS District Offices	1,468

II. *RECORD OF NEW PARTICIPATION OBTAINED IN 1958 BY MMS STAFF*

A. Participation increase in the $2,500 and $5,000 contracts:		
1. New doctors entering practice	279	
New doctors signing participation agreements	76	
2. Doctors already practicing who signed agreements	66	
3. Doctors who re-entered practice who signed agreements	21	
Total additional participating agreements ($2,500 & $5,000 contracts)	163	
B. Loss in $2,500 and $5,000 contract participation due to		
1. Left State	75	
2. Retired	13	
3. Deceased	71	
4. Moved, whereabouts unknown	99	
5. Military Service	8	
6. Resigned	41	
Total loss of participating agreements		307
Net gain (loss) in $2,500 & $5,000 contract participation		(144)
C. M-75 participation obtained by personal contact MMS Staff (This is supplemental to the results of the 1958 Seal of Assurance campaign of the Michigan State Medical Society)		432
D. Total participation obtained by MMS Staff—all contracts		595

Medicare.—The year 1958 has been one of great change in respect to the care of servicemen's dependents. Where frequent changes occur there is bound to be a certain degree of confusion and misunderstanding, especially in a program of this nature. It seems as though we were barely through advising the profession of a change when another development was upon us. We regret that a more stable situation could not be presented. However, the Department of Defense was severely "put to task" by the Congress in meeting their requirements especially concerning the budget. The resulting modifications were passed along to each Contractor who in turn was required to report them to the profession.

Step by step, the story goes like this:

February 1, 1958	—No longer pay separate benefit for office urinalysis by obstetrician.
March 10, 1958	—To Washington for new contract negotiations.
April 1, 1958	—New contract approved by Council in effect with new higher schedule of benefits based on a relative value system. Minor revisions in coverage and administration.
July 1, 1958	—No longer pay for orally administered drugs in OB cases—only injectable drugs now covered.
August 8, 1958	—Emergency conference of Plan Directors in Washington to discuss drastic cut-back ordered by Congress.
September 15, 1958	—Preliminary announcement and outline of changes effective October 1, 1958 to all physicians in event State Society ratifies new revised contract.
October 1, 1958	—Ratified revisions officially put into effect.
Present	—Consolidation of position under October 1, 1958 revisions. Still much misunderstanding and confusion regarding coverage and administration of claims. No further changes foreseen but Congress could decide to cut-back further or possibly even reinstate part of the former broader program.

October 1, 1958 saw the freedom of choice of physician revoked from the patient in those cases wherein patient and sponsor (serviceman) resided together. For all eligible dependents, coverage was reduced in several important areas:

1. Office or out-patient care of any condition except obstetrical cases.
2. Referring physicians termination office visit.
3. Office or out-patient pre and post surgical (or accident) tests and procedures.
4. Neonatal (pediatric) office or out-patient visits.
5. Treatment of acute emotional disorders except if treatment is concurrent with treatment for some other eligible condition.
6. Elective (planable) surgery.

Eligible care now consists of only the following:

1. Complete obstetrical care in or out of the hospital. (No change from old regulations.)
2. Treatment of *acute* surgical conditions *requiring* hospitalization.
3. Treatment of *acute* medical conditions *requiring* hospitalization.

Statistically, for the eleven months ending November 30, 1958 we show steady growth in services paid. We averaged 937 paid claims per month (total per year 10,311) amounting to $73,751.61 per month, total paid to doctors $811,167.71. Average value of each paid claim was $78.68. We anticipate a drop in excess of 40% of paid claims when the full effect of the October 1, 1958 revisions is felt. Michigan Medical Service administrative expense for the eleven months was $17,997.64

Veterans Hometown Care Program.—A few changes were introduced with the renewal of the Veterans Hometown Care Program contract, between Michigan Medical Service and the Veterans Administration, for the fiscal year commencing July 1, 1958. The most important was a new fee schedule governing out-patient care rendered eligible veterans. This fee schedule was negotiated by a special committee of the Michigan State Medical Society. Many fees were increased; the most common being routine office calls going from three to four dollars. Next, the entire service code structure was altered to conform to the nation-wide service code system used by the Veterans Administration. Another significant change in the contract eliminated the need for the doctors to sign the invoices. However, the treating physician's name must be on the invoice for payment purposes. Services rendered eligible veterans may be billed to Michigan Medical Service on the physician's own letterhead if the Veterans Administration invoice form is not available. Concurrent with authorizations being issued directly by the Veterans Administration came a few administrative changes in the authorizing procedure. Instead of sending initial authorizations to the veteran as in the past, he must now give to the Veterans Administration the name of the doctor, from whom he intends to seek treatment. If the named doctor is already participating with the Veterans Hometown Care Program the authorization is granted. If the doctor is not participating, the Veterans Administration will not grant the veteran's request for authorization until the doctor has been contacted and advised of the veteran's desire to be treated and at the same time is requested to register. Should the veteran require immediate treatment he will either be given the name of several participating doctors from whom he may choose, or be treated at the Veterans Administration during the interim. Another important change introduced is that specialist office treatment is not authorized unless it is known ahead of time that the intended treating physician is a specialist.

The volume of authorizations held quite steady, averaging between 4,500 and 5,500 per month, although the number of visits per authorization was reduced con-

siderably. This was accomplished by the excellent cooperation on the part of the fee-basis physician when told by the Veterans Administration that funds were short and that all authorizations would have to be held to the veterans absolute needs.

Payments to doctors for the eleven months ending November 30, 1958 amounted to $989,094.05 and Michigan Medical Service expense was $31,362.27 or 3.58% of the payments.

January 22, 1959 we received two letters from Regional Office of Veterans Administration. The first letter requests that the administrative procedures be changed so that the quarterly treatment report and the invoice for services be sent direct to the Veterans Administration. After Veterans Administration approves and sends Michigan Medical Service the funds, Michigan Medical Service would then pay the doctor. The payment of the doctor would be about all that Michigan Medical Service would do. The second letter objects to the fee schedule for the year 1959-60 effective July 1, 1959. Both of these letters have been referred to The Council of Michigan State Medical Society.

L. FERNALD FOSTER, M.D.
President, Michigan Medical Service

BLUE SHIELD FACT SHEET

September 30, 1958

I. TOTAL BLUE SHIELD MEMBERSHIP 41,723,726

II. Blue Shield Members in United States, Puerto Rico and Hawaii 39,747,063
Per Cent of total population in United States, Puerto Rico and Hawaii 23.21

III. Blue Shield Members in Canada 1,976,663
Per Cent of total population in Canada enrolled in Blue Shield 11.92

IV. States in which more than 40 per cent of the population are Blue Shield members:

State	*Per Cent*
District of Columbia	63.17
Delaware	58.56
Connecticut	47.51
Michigan	44.74
New York	42.56
Massachusetts	42.00

States in which 20 per cent to 40 per cent of the population are Blue Shield members:

State	*Per Cent*	*State*	*Per Cent*
New Hampshire	38.51	Kansas	25.22
Vermont	35.11	Ohio	24.59
Pennsylvania	33.29	Maine	23.37
Colorado	32.07	Iowa	21.79
New Jersey	28.71	Alabama	21.77
Indiana	27.87	Missouri	21.46
Hawaii	26.48	Tennessee	20.92
Minnesota	26.24	Wisconsin	20.91
North Dakota		Illinois	20.81

Per Cent of population enrolled in Blue Shield in areas served by Canadian Plans:

Province	*Per Cent*	*Province*	*Per Cent*
Manitoba	34.82	Ontario	14.57
Saskatoon	28.55	Maritime Prov.	13.40
British Columbia	28.04		

V. Growth of Blue Shield Medical Care Plans:

December 31	*Total Members*
1946	1,826,719
1947	5,791,175
1948	8,911,225
1949	12,260,045
1950	16,629,596
1951	21,130,996
1952	24,670,701
1953	28,183,708
1954	31,590,474
1955	35,725,533
1956	38,802,846
1957	41,479,053
September 30	
1958	41,723,726

Blue Shield Medical Care Plans are now in operation in 43 of the 48 states, in the District of Columbia, in eight Canadian Provinces, and in the Territories of Puerto Rico and Hawaii. The direct writings of Medical Indemnity of America, Inc., are also included.

VI. Percentage Distribution of Total Income Dollar:

Reporting Plans	*Claims Expense*	*Operating Expense*	*Reserve Funds*
1947—45 Plans	78.24	15.60	6.16
1948—57 Plans	77.19	14.26	8.55
1949—61 Plans	78.99	13.88	7.13
1950—68 Plans	78.51	13.05	8.44
1951—75 Plans	79.63	12.39	7.98
1952—75 Plans	79.32	11.89	8.79
1953—76 Plans	80.30	11.24	8.46
1954—76 Plans	81.15	11.10	7.75
1955—75 Plans	82.75	10.63	6.62
1956—72 Plans	86.06	10.47	3.47
1957—73 Plans	86.97	10.28	2.75
First Nine Months			
1958—72 Plans	89.67	10.02	.31

VII. Payments to Doctors and Operating Expenses of Blue Shield Plans:

Year	*Payments to Doctors*	*% of Total Earned Sub. Income*	*Operating Expense*	*% of Total Earned Sub. Income*
1956 United Stats, Puerto Rico and Hawaii	$407,350,023	86.56	$50,702,153	10.77
Canada	31,237,425	93.41	2,647,650	7.92
Total	438,587,448	87.02	53,349,803	10.58
1957 United States, Puerto Rico and Hawaii	$473,490,046	87.57	$57,201,539	10.58
Canada	37,472,883	93.89	3,220,035	8.07
Total	510,962,929	88.00	60,421,574	10.41
First Nine Months 1958 United States Puerto Rico and Hawaii	$397,719,044	90.40	$45,281,248	10.29
Canada	31,938,515	96.98	2,727,846	8.28
Total	429,657,559	90.86	48,009,094	10.15

VIII. Miscellaneous Facts:
1. 10,495 persons joined Blue Shield each working day during 1957.
2. 2,676,207 persons became Blue Shield members during 1957.

IX. Section D—Financial Reports of Blue Shield Plans. First nine months of 1958

VETERAN'S CARE PROGRAM

Reported as of September 30, 1958 by Six Plans to the Blue Shield Medical Care Plans.

Headquarters City	*Fees Earned*	*Payment to Physicians*	*Operating Expense*	*Operating Expense %*
San Francisco, Cal.†	$15,756,794	$14,719,007	$1,037,787	7.1
Denver, Colo.	37,364	33,893	3,471	10.2
Detroit, Mich.	1,462,251	1,418,717	43,534	3.1
Chapel Hill, N. C.	158,948	144,065	14,883	10.3
Portland, Ore.†	55,813	53,115	2,698	5.1
Honolulu, Hawaii†	42,241	40,333	1,908	4.7
Total 6 Plans	$17,513,411	$16,409,130	$1,104,281	6.7

†Plans not affiliated with Blue Cross.
Includes direct writing of HSI-MIA

PUBLIC RELATIONS

During 1958, our Public Relations activities divided roughly into ten areas of endeavor:

1. Seal of Assurance Information Program. At the request of The Council and under the direction of the Seal of Assurance Committee, the MSMS public relations activity helped to inform our members of the new developments in medical care coverage based upon the 1957 House of Delegates action. Culminating the intensive information program in this complex subject, the best efforts of MSMS were used to obtain participation of its members as was required by House of Delegates action.

2. Hospital Visitation Program in Wayne County. Because of the unique problems in reaching the membership of this largest county medical society, MSMS and Wayne jointly have sponsored a hospital visitation program. In 1958, twenty-eight hospital staffs were visited by officers of both societies, to discuss new developments and obtain the views and suggestions of the membership on the organizational aspects of medicine.

3. Motion Pictures. As a tribute to the members of the Wayne County Medical Society, MSMS authorized and produced a documentary film of the transition of

the WCMS from the old to the magnificent new David Whitney House. The film was supervised by a committee of Wayne County doctors under the chairmanship of W. B. Harm, M.D., and was first shown at the new headquarters dedication ceremonies. Subsequently, the film has been shown to hospital staffs as part of the visitation program.

4. Press Relations. Although not every story concerning individual doctors of medicine was "perfect" public relations, it can be said that the activities and goals of medicine generally were related to the public in a fair and understanding manner.

To further the rapport between medicine and the press, MSMS this year adopted a Media Code and is encouraging County Medical Societies to adopt the Code to help the individual practitioner and the reporter do a better job of telling medical stories within the framework of medical ethics.

5. Public Relations Library. During the past year, the library's facilities have been increasingly utilized. The Public Relations Committee is now absorbed in publishing the MSMS Public Relations Library Catalogue which will be distributed to each of our members. We believe that this will stimulate the use of the valuable information and ideas which the library now contains.

6. Radio—Television. The public's reception of MSMS two major efforts in television this year was overwhelming. During the Michigan Clinical Institute, the public colorcast of an aortic transplant was carried by a state-wide network of TV stations—the first time in the nation that this was done. In conjunction with the Annual Session, MSMS in cooperation with the Michigan Health Council produced "The Family Doctor," an hour-long spectacular, through the facilities of WJBK-TV, Detroit. This special show was widely acclaimed.

In cooperation with component county medical societies, MSMS continues to distribute to 40 Michigan radio stations a 15-minute transcribed health series and our own "Tell Me, Doctor" transcriptions which were brought up to date last year.

7. Science Fairs. There is increasing interest in Science Fairs throughout the nation and Michigan was in the forefront in 1958. With the National Science Fair held in Flint, an opportunity was provided for Genesee County Medical Society to participate in this worthwhile project. Other localities also produced their own local fairs including the Detroit Metropolitan Science Fair in which Wayne County Medical Society and neighboring societies participated. MSMS has stimulated increased interest in future science fairs as well.

8. Exhibits. In an expanded program of health exhibitions, the public relations staff, in cooperation with the county medical societies, exhibited at the Michgan State Fair, the Saginaw County Fair, and the Ionia Free Fair. Cooperating in manning the booths were the Woman's Auxiliary and the Medical Assistants.

9. Annual Session—Michigan Clinical Institute. Working through press committees at both sessions, the science reporters found an unusual amount of interesting medical news. MSMS took this opportunity to tell a story to the public at various luncheon clubs. During the MCI, this year more non-scientific talks were given by doctors to public groups than scientific essays were presented on the MCI program itself!

10. Pamphlet and Editorial. Public Relations should be congratulated for the high quality of the many printed pieces which are produced by MSMS each year, including various programs of activities associated with our annual meetings and MCI as well as writings in the JMSMS and production of The Auxilium for the Woman's Auxiliary.

It can be concluded that Public Relations activity and interest has penetrated many facets of our organizational activity. This is as it should be, for everything that we do requires communication and all things done in medicine have their effect on the public's health and the public's opinion. We see in our P.R. program a very well-rounded effort that needs continued hard work on the part of members and staff to maintain.

LEGISLATION

Most members of our profession realize that we must be more than just healers, we must also be citizens of our community; and that when the best interests of our patients require our participation in politics and in the legislative activities in Lansing and Washington, we willingly accept our responsibilities.

The extent to which we arise to this continuing challenge is well documented in every report of our Legislative Committee.

One example from the last session of the Michigan Legislature bears noting: The Michigan State Medical Society was instrumental in the amending of the County Hospital Act of 1913, to provide the boards of trustees of seven public hospitals with supervisory powers over the professional work in their hospitals. We can take satisfaction in knowing that our efforts will result in a better standard of health care in those institutions.

A total of 100 bills, each having a direct bearing upon the practice of medicine, was introduced in the last session of the Michigan Legislature. It should be noted that no legislation detrimental to the public (in the field of health) was enacted in 1958.

Now as another legislative session begins, we must realize that medicine as we know it is under assault on both the state and national level. If we are to continue to be able to make our advices effective it is vital that our membership be more aware of their responsibilities to legislators and congressmen in their home communities.

AWARDS

As in past years, the Awards Committee has carried out its duties well. However, for some time it has been our feeling that both MSMS members and staff should be formally recognized for valued service to the MSMS over the years and that this should be systematized and not be left to inspirational happenstance.

A recommendation on this subject follows.

Your Secretary is grateful for the helpful co-operation given him by his Council during the past year.

Too much commendation cannot be accorded the Executive Office staff for their untiring efforts and loyalty to the Michigan State Medical Society.

Your Secretary is especially appreciative of the constructive advice and services accorded him by William J. Burns, Executive Director, Mr. Dodd, Legal Counsel, Hugh Brenneman, Public Relations Counsel and his staff, Wilfrid Haughey, M.D., Editor, and Robert Roney, Assistant Executive Director. Our field secretaries did an unusual job in their legislative activities.

To everyone who has aided so generously and willingly in the discharge of his duties, your Secretary is most grateful.

RECOMMENDATIONS

After a careful consideration of the continued successful operation of the MSMS and its many projects, I respectfully submit the following recommendations:

1. That recommendation be offered the Committee on Scientific Work that it develop a complete panel-type program for the 1960 Annual Session in Detroit; and for this purpose, that preliminary arrangements be inaugurated in early 1959—and that the idea be conveyed to the Sections, in order to achieve the continuity necessary to accomplish this project, that they re-elect their present officers for another year, wherever possible.

2. That a Research Committee on Organizational Services be formed, to investigate and evaluate *new* activities presently rendered by other societies to their memberships, and to make recommendations to The Council for desirable and practical additions to the MSMS roster of services.

3. That a system of awards for years of service to MSMS, by either members or staff, be developed and implemented.

Respectfully submitted
L. FERNALD FOSTER, M.D.
Secretary

EDITOR'S ANNUAL REPORT—1958

Volume 57 of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY has been completed. THE JOURNAL was established in October, 1902, by Andrew P. Biddle, M.D., who was the Secretary of the State Medical Society. There had been a number of medical journals published in the state of Michigan, small and short-lived, but filling a useful place, sporadically bringing to the membership the latest medical news and medical scientific papers. Since its inception, the State Medical Society had been publishing each year what was termed "Transactions," distributing them to its membership. These were bound books containing papers presented at the annual meetings.

In 1902, the State Medical Society underwent a very radical reorganization establishing itself as a representative body being administered by its executive officers, The Council and a House of Delegates which was selected by each component County Medical Society on the basis of one delegate for each society and an extra delegate for the second fifty members or major fraction. All societies had one delegate, a few had two, and some of the larger ones had more, establishing the fundamental principle of a delegate representing fifty members. That original concept has not changed, though there has been criticism of it, owing to the belief that it gives to small societies too large a representation in the affairs of the State Society. The organization was established largely with our federal government as a pattern, with representatives, corresponding to our delegates, one for each state plus extras for a certain number of citizens—that number changing during the years. The federal government also had a senate with each state having two senators. The State Medical Society set up a Council established upon a very different basis, primarily one for each congressional district in the state.

At the time of this reorganization, it was decided to discontinue the "Transactions" and establish a JOURNAL. Dr. Biddle published four volumes or thirty-nine numbers (Volume 1 had only three numbers). Benjamin Schenck succeeded for four years, publishing forty-eight numbers; Wilfrid Haughey succeeded for three years with thirty-six numbers; Frederick Warnshuis of Grand Rapids was then elected Secretary and Editor and served as Editor for sixteen years developing 192 numbers. It was then decided that the job was too big for one man to be both Secretary and Editor, and J. H. Dempster, M.D., of Detroit, was appointed the new Editor. He served for ten years, publishing 120 issues. Dr. Dempster was selected because of previous experience as a medical editor and not because of office in the State Medical Society (such as Secretary) as had been his predecessors. The next Editor was Roy Herbert Holmes, M.D., of Muskegon, Councillor from that district and chairman of the Publication Committee. He served four years lacking four months, publishing forty-four issues, when he was called into military service in World War II. Wilfrid Haughey, M.D., of Battle Creek, was chairman of the Publication Committee and took over in time to prepare the September number that year. He was Councillor from the Third District and had been on The Council for eight years and continued on The Council for seven more. With the December, 1958, number, he has published 196 issues, making a total of 675 numbers of THE JOURNAL which have been published up to the end of the year 1958. This is an interesting historic background which exists largely in memory.

During the year 1958, we have published 1,786 pages of THE JOURNAL plus 106 pages of Directory. That does not include cover pages, tipped in pages, or the four pages of central insert which we have been using. One hundred and seventy-one authors have contributed to our scientific papers, four of these having appeared twice.

We have continued the policy established many years ago of publishing editorials of an educational and socio-economic type, attempting to carry to our readers the philosophy of the Society as a whole, the accomplishments and ambitions of its members and reports on the major problems demanding our best thought and action. That has been, to a considerable extent, the motive of our preceding editors who, strange to say, have in every instance save one been officers of the state society. Dr. Dempster devoted his editorial attention to a scientific medical journal. He had been a medical editor and so continued being interested more in science than in economic problems.

In the year 1958, we have published fifty-one book reviews, sixty-six editorials and twenty-one editorial comments, seven cancer comment pages, five groupings of abstracts and condensations of the Detroit Physiological Society, and twelve of the Detroit Surgical Society, sixty-nine memorial sketches and a Blood Symposium abstracting twenty-one papers.

The January, 1958, number was devoted to Heart, the cover being a distinctive diagram of "Your Heart and How It Works." This material was presented to us very largely by the Michigan Heart Association. February honored the Kent County Medical Society with appropriate photographs of some of Kent County Society buildings on the cover. A picture of a doctor, a stethoscope, a microscope and sketches of the seven ages of man, showed the need of Preventive Medicine in the March issue. "Strike at Cancer" was the slogan for the April Cancer Number and showed an armed medieval warrior standing among the dragons carrying a staff with a streamer reading "Service—Research—Education." The May issue was devoted to Immunization with a man in armor overlooking a child and the words "Immunization—Modern Armor for Child Health." June, honoring Michigan Medical Service, used the slogan "Operation Crossroad—Now—Operation Forward" and showed road signs pointing the way forward.

July again was the Annual Session number for the 93rd session, showing a map of the United States with all roads leading to Detroit and the words "New Opportunity to Learn New Medicine." "Rural Health—The Last Frontier" was emphasized in August, showing an elderly man working in his garden and a child bringing him tools. A rough sketch of the new David Whitney House whose dedication took place that month, decorated the cover of the September issue which honored the Wayne County Medical Society. "Life in the Balance—Diet in Diabetes Control" was the theme for October and showed food being weighed on a scale. November, devoted to and sponsored by the Michigan Foundation for Medical and Health Education, honored "The Rural M.D.—Important to His Community" and illustrated the rural M.D. on his rounds. December, as usual, was devoted to Michigan Clinical Institute, featuring "All That's New in Medicine" and showing three knowledge capsules.

We are extremely thankful to those who were designated by these various interest groups to help lay out the plans for THE JOURNAL and to supply special papers. Again the editor wishes to express his thanks to the men who assisted in the preparation of these JOURNALS: J. G. Bielawski, M.D., William R. Vis, M.D., William S. Reveno, M.D., William A. Hyland, M.D., Thomas Francis, Jr., M.D., L. Fernald Foster, M.D., L. Gordon Goodrich, Vlado Getting, M.D., L. J. Bailey, M.D., Clarence I. Owen, M.D., Charles Sellers, M.D., Wm. L. LeFevre, M.D., E. I. Carr, M.D., and also the staff at Lansing and especially Wm. J. Burns, Hugh Brenneman, Warren Tryloff and Robert J. Roney.

The JOURNALS for the year 1959 have all been assigned, together with the various doctors who will assist

in assembling the material and in furnishing lead editorials. January will be Heart; February—The Doctor As a Citizen; March—The Washtenaw County Medical Society; April—Cancer Control; May—Beaumont Memorial Foundation; June—Michigan Medical Service; July—MSMS Annual Session; August—Child Welfare; September—Geriatrics; October—National Defense; November—Tuberculosis Control, and December—Michigan Clinical Institute.

Certain numbers for 1960 are assigned because a pattern has been established and they will continue unless for some reason a different arrangement be made. January will be Heart: April—Cancer Control: June—Michigan Medical Service; July—MSMS Annual Session, and December—Michigan Clinical Institute.

The Editor wishes to express his profound pleasure and satisfaction to have worked through the years with a constantly changing list of advisors, colleagues and collaborators. He has found the men with whom he worked always ready to lend a helping hand, to suggest and assist. His work has been a pleasure as well as a dedicated duty. These contacts, these exchanges of thought and opinion have kept him encouraged to attempt to do an increasingly better job.

Respectfully submitted,
WILFRID HAUGHEY, M.D.
Editor

MSMS 1959 BUDGET ESTIMATES

GENERAL FUND

ACCOUNT TITLE	1959 Estimates
INCOME:	
5250 members @ $60.00	$315,000.00
Less: $1.50 to THE JOURNAL	7,875.00
$9.25 to Public Education	48,562.50
$4.50 to Public Service	23,625.00
$6.25 to Professional Relations	32,812.50
$10.00 to MSMS Hdqts. Fund (New Bldg.)	52,500.00
$1.50 to Public Education Reserve	7,875.00
Balance to General Fund @ $27.00	$141,750.00
Interest and Misc. Income	8,000.00
TOTAL FUNDS AVAILABLE (General Fund)	$149,750.00
EXPENSES: (Administrative & General)	
Printing, Mailing & Postage	$ 7,000.00
Office Supplies	3,500.00
Insurance and Bonds	2,000.00
Auditing	750.00
Salaries: Adminstrative & Office & Legal Counsel	35,562.00
General Counsel Expense	500.00
Equipment and Repairs	3,000.00
Telephone & Telegraph	4,500.00
Taxes (Other than Property)	2,600.00
Miscellaneous Expenses & Contributions	2,000.00
Employes' Retirement Trust	10,500.00
I.B.M.	1,800.00
TOTAL ADMINISTRATIVE & GENERAL EXPENSE	$ 73,712.00
EXPENSES: (Society Activities)	
Council Expense	$ 18,000.00
AMA Delegates and Alternates	6,000.00
General Society Travel & Entertainment	7,000.00
Officers Travel	5,000.00
Secretary's Letters & Office Expense	1,200.00
Woman's Auxiliary	600.00
Dues Collection Expense	3,200.00
TOTAL SOCIETY ACTIVITY EXPENSE	$ 41,000.00
EXPENSES: (Committees)	
Cancer Coordinating Committee	$ 1,000.00
Child Welfare Committee	500.00
National Defense	500.00
Geriatrics	400.00
Industrial Health	100.00
Iodized Salt (Includes $1,500 previously authorized for Exhibit)	1,600.00
Legislative	1,400.00
Maternal Health	450.00
Mental Health	300.00
Michigan Health Council	10,000.00
Postgraduate Medical Education	4,500.00
Preventive Medicine	100.00
Permanent Conference Committee	250.00
Rural Medical Service	100.00
Scientific Radio	1,200.00
Tuberculosis Control	250.00
Veneral Disease	100.00
Highway Accident Committee	520.00
Advisory Committee to Medical Assistants	200.00
Big Look Committee	500.00
Medical Care Insurance Committees	15,000.00
Uniform Fee Schedule for Govt. Agencies	300.00
Miscellaneous Committees	1,050.00
TOTAL COMMITTEE EXPENSE	$ 40,320.00
TOTAL GENERAL FUND EXPENSES	$155,032.00
GAIN OR LOSS FOR THE YEAR	(L) 5,282.00
BALANCE FROM PRIOR YEARS	175,249.99
NET GAIN OR LOSS FROM ANNUAL SESSION M.C.I. and THE JOURNAL	—0—
BALANCE TO FUTURE YEARS	$169,967.99

BUILDING MAINTENANCE FUND

INCOME:	
Allocation from Membership Dues	$ —0—
EXPENSES:	
Maintenance: Utilities, Decorating, supplies	2,000.00
Salaries—Janitor	1,500.00
Property Taxes	1,000.00
Insurance—Fire & Liability	500.00
Depreciation	1,800.00
TOTAL BUILDING MAINTENANCE EXPENSE	$ 6,800.00
GAIN OR LOSS FOR THE YEAR	(L) 6,800.00
BALANCE FROM PRIOR YEARS	22,195.41
BALANCE TO FUTURE YEARS	$ 15,395.41

MSMS CONTINGENT FUND

Balance from prior years	$ 53,614.34

MSMS HEADQUARTERS FUND

INCOME:	
Allocation from membership dues	$ 52,500.00
Balance from prior years	85,373.04
TOTAL MSMS HEADQUARTERS FUND (New Bldg.)	$137,873.04

ANNUAL SESSION

INCOME:	
Booth Sales (132 spaces) Grand Rapids	$ 30,000.00
EXPENSES:	
Scientific Meeting	$ 3,750.00
Exhibit Expense	5,200.00
Registration and Hotel	850.00
State Society Night	4,000.00
Promotion: Printing & Mailing & Postage & Scientific Work Committee	3,500.00
Press Expense	2,500.00
Salaries	6,000.00
House of Delegates	4,000.00
Miscellaneous expenses	200.00
TOTAL ANNUAL SESSION EXPENSE	$ 30,000.00
GAIN OR LOSS ON THE ANNUAL SESSION	—0—

MICHIGAN CLINICAL INSTITUTE

INCOME:	
Booth Sales (74 Spaces) Detroit	$ 13,585.00
EXPENSES:	
Scientific Meeting	$ 3,000.00
Exhibit	3,200.00
Registration and Hotel	700.00
Promotion: Printing & Mailing & Postage	2,535.00
Press Expense	2,000.00
Salaries	1,500.00
Residents & Interns Conference	250.00
Miscellaneous Expenses	400.00
TOTAL MICHIGAN CLINICAL INSTITUTE EXPENSE	$ 13,585.00
GAIN OR LOSS ON M.C.I.	—0—

THE JOURNAL

INCOME:	
Allocation from membership dues	$ 7,875.00
Subscriptions—non members	700.00
Advertising Sales	115,000.00
Reprint & Cut Sales	4,000.00
TOTAL JOURNAL INCOME	$127,575.00
EXPENSES:	
Editor's Expense	$ 3,400.00
Printing, Mailing & Postage	73,000.00
Reprint & Cut Expense	3,800.00
Salaries	21,290.00
Discounts & Commissions	26,000.00
Miscellaneous Expenses	85.00
TOTAL JOURNAL EXPENSES	$127,575.00
GAIN OR LOSS ON THE JOURNAL	—0—

PUBLIC EDUCATION RESERVE

INCOME:	
Allocation from Membership Dues	$ 7,875.00
Balance from prior years	91,165.25
TOTAL PUBLIC EDUCATION RESERVE	$ 99,040.25

PUBLIC EDUCATION ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 48,562.50
Other Income	100.00
TOTAL PUBLIC EDUCATION INCOME	$ 48,662.50
EXPENSES:	
Committee Meetings	$ 200.00
Equipment and Repairs	1,000.00
Printing, Mailing and Postage	2,500.00
Office Supplies	1,800.00
Salaries	22,000.00
Telephone and Telegraph	1,500.00
Travel and Entertainment	7,000.00
Exhibit Expense	1,800.00
Publications, Pamphlets and Clippings	1,500.00
Radio, TV and Cinema	6,000.00
Miscellaneous Expense	1,500.00
Library (Includes $300 Salary)	1,000.00
Michigan Association of Professions	5,000.00
Testimonial Luncheon (M.C.I.)	1,300.00
TOTAL PUBLIC EDUCATION EXPENSE	$ 54,100.00
GAIN OR LOSS FOR THE YEAR (L)	5,437.50
BALANCE FROM PRIOR YEARS	17,677.72
BALANCE TO FUTURE YEARS (G)	$ 12,240.22

PUBLIC SERVICE ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 23,625.00
EXPENSES:	
Salaries	$ 22,000.00
Telephone & Telegraph	700.00
Travel and Entertainment	7,000.00
Rural Health Conference	100.00
TOTAL PUBLIC SERVICE EXPENSE	$ 29,800.00
GAIN OR LOSS FOR THE YEAR (L)	6,175.00
BALANCE FROM PRIOR YEARS (L)	5,409.09
BALANCE TO FUTURE YEARS (L)	$ 11,584.09

PROFESSIONAL RELATIONS ACCOUNT

INCOME:	
Allocation from Membership Dues	$ 32,812.50
EXPENSES:	
Rent to Wayne County Medical Society	720.00
Salaries	22,000.00
Telephone and Telegraph	1,000.00
Travel and Entertainment	7,000.00
National Meeting Expense	1,500.00
County Secy's—P.R. Conference	6,500.00
County Society & Field Secy. Meetings	500.00
Woman's Auxiliary	2,000.00
Miscellaneous Expense	100.00
Printing, Mailing and Postage	500.00
TOTAL PROFESSIONAL RELATIONS EXPENSE	$ 41,820.00
GAIN OR LOSS FOR THE YEAR (L)	9,007.50
BALANCE FROM PRIOR YEARS (L)	2,463.45
BALANCE TO FUTURE YEARS (L)	$ 11,470.95

RHEUMATIC FEVER CONTROL PROGRAM

INCOME:	
From Michigan Heart Association	$ 12,200.00
EXPENSES: (Central Office)	
Committee Meetings	600.00
Equipment and Repairs	200.00
Payroll Taxes	350.00
Printing, Mailing and Postage	1,750.00
Office Supplies	100.00
Fellowships	3,000.00
TOTAL CENTRAL OFFICE EXPENSE	$ 6,000.00
EXPENSES: (Control Centers)	
Alpena	500.00
Ann Arbor	800.00
Bay City	200.00
Detroit	500.00
Grand Rapids	1,500.00
Kalamazoo	1,200.00
Muskegon	200.00
Petoskey	100.00
Pontiac and Royal Oak	100.00
Saginaw	100.00
Traverse City	1,000.00
TOTAL CONTROL CENTER EXPENSE	$ 6,200.00
TOTAL RHEUMATIC FEVER CONTROL EXPENSES	12,200.00
GAIN OR LOSS FOR THE YEAR	—0—
BALANCE FROM PRIOR YEARS	1,879.18
BALANCE TO FUTURE YEARS	$ 1,879.18

REPORT OF KNOSTMAN & SMITH,
Certified Public Accountants—1958

Executive Committee of the Council
Michigan State Medical Society

We have examined the Statement of Financial Condition of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1958, and the related statements of income and expense and fund transactions for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Financial Condition and related statements of income and expense and fund transactions, present fairly the position of the MICHIGAN STATE MEDICAL SOCIETY as at November 30, 1958, and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

KNOSTMAN & SMITH
Certified Public Accountants

Lansing, Michigan
December 30, 1958

Executive Committee of the Council
Michigan State Medical Society
Lansing, Michigan

Gentlemen:

The following comments relate to the scope of our examination of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1958, and to the more important items appearing in your financial statements for the fiscal year then ended.

HISTORY

The MICHIGAN STATE MEDICAL SOCIETY was organized on September 17, 1910, under the laws of the State of Michigan, as a non-profit corporation. The charter has been extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association, and it charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

COMMENTS

Your commercial bank account and your savings account were confirmed by direct correspondence with the Michigan National Bank, Lansing, Michigan, and the balances thus obtained were reconciled to your books of account as at November 30, 1958.

The treasurer's account, maintained at the Michigan National Bank, Grand Rapids, Michigan, was reconciled to your books of account at November 30, 1958, and further confirmed by direct correspondence with the depositary.

Our representative counted petty cash in the Lansing office in an amount of $36.61. The Detroit office petty cash of $50.00 was not verified.

Accounts receivable were confirmed by direct correspondence. Although not all confirmations have been returned, no negative replies have been received. Accounts Receivable, aged by month of charge is as follows:

September, October, November	$17,631.46
June, July, August	414.72
Over six months	1,686.53
TOTAL	$19,732.71

Insurance premiums due from employes in an amount of $1,642.03 are reimbursed to the society via payroll deductions. This balance is comprised of the following:

Retirement plan premiums	$1,633.48
Michigan Medical Service premiums	8.55
TOTAL	$1,642.03

The net cost of your retirement plan for the current year is as follows:

	Total	*Society Share*	*Employee Share*
Premium—1 year	$18,511.23	$ 9,984.42	$8,526.81
Adjustments	1,064.69	568.86	495.83
NET	$19,575.92	$10,553.28	$9,022.64
Collections from employees	$ 7,389.16		$7,389.16
	$12,186.76		$1,633.48
Due from employees in December, 1958, and January, 1959	$ 1,633.48		$1,633.48
NET SOCIETY COST	$10,553.28	$10,553.28	—0—

The employe loan is being repaid through monthly payroll deduction. The original loan of $5,000.00 was made on September 15, 1958, as authorized in the executive committee minutes of June 11, 1958.

An analysis of changes in your investments during the current year is set forth in Schedule 10, as well as a detail of interest received and amortization taken. All securities were confirmed by direct correspondence with the Michigan National Bank, Grand Rapids, Michigan, per their letter dated December 10, 1958.

Schedule 11 sets forth real estate owned and deposits pending new construction, together with applicable depreciation allowances.

Purchases of office equipment during the current year were charged to expense in accordance with the policy of the Society of not capitalizing these assets.

Receipts of membership dues were reconciled to the 6,668 cards issued during the year under review.

Journal advertising was test checked by us and the income from the sale of booth space for the Annual Session and the Michigan Clinical Institute was verified by our representative.

State and federal unemployment taxes were computed by our representative as at November 30, 1958.

Your accountant informed us that the Federal Income Tax Return for the year ended November 30, 1957, has not as yet been filed. Suffice it to say that governmental returns of any nature should not be delayed this long without just cause.

Exhibit 'C" sets forth the detail of the $71,643.70 net gain for the period ended November 30, 1958.

Respectfully submitted,
KNOSTMAN & SMITH
Certified Public Accountants

STATEMENT OF FINANCIAL CONDITION
November 30, 1958

ASSETS

CASH ON HAND AND IN BANKS		
Michigan National Bank		
Lansing, Michigan (regular account)	$ 38,474.12	
Lansing, Michigan (savings account)	10,458.53	
Grand Rapids, Michigan, (Treasurer's account)	7,119.30	
Office cash (Lansing and Detroit, Mich.)	86.61	$ 56,138.56
ACCOUNTS RECEIVABLE		
Advertising, allowances and other items	$ 19,732.71	
Due from employees—Insurance premiums	1,642.03	
Employee travel advances	400.00	
Employee loan (interest rate 4%)	4,916.44	
Due from employees (for merchandise purchased)	183.08	
	$ 26,874.26	
Less allowance for doubtful accounts	126.30	$ 26,747.96
INVESTMENTS (Schedule 10)		
Held for Public Education	$ 58,000.00	
Held for General Fund	188,177.80	$246,177.80
(Market or redemption value $241,156.50)		
PROPERTY AND EQUIPMENT (Schedule 11)		
Land	$ 10,000.00	
Lot adjoining office building	6,000.00	
Other real estate and deposits	74,433.50	
Office building	$34,500.00	
Building improvements	5,664.06	
Building equipment	3,836.09	
Parking lot	1,913.60	$ 45,913.75
	$136,347.25	
Less depreciation allowance	12,057.32	$124,289.93
OTHER ASSETS		
Overdeposit on payroll taxes		186.41
TOTAL ASSETS		$453,540.66

LIABILITIES

ACCOUNTS PAYABLE		
Federal Unemployment tax	$ 199.80	
Michigan Unemployment tax	34.34	
Unpaid invoices	14,252.78	
TOTAL ACCOUNTS PAYABLE		$ 14,486.92
SOCIETY EQUITIES		
RESERVED FOR SPECIAL PURPOSES		
Public Education Reserve	$ 91,165.25	
Public Education Program	17,677.72	$108,842.97
Public Service Account	(5,409.09)	
Professional Relations Account	(2,463.45)	
Rheumatic Fever Central Program	1,879.18	
Contingent Fund	53,614.34	
Building Fund	22,195.41	
New Headquarters Fund	85,373.04	
TOTAL RESERVED	$264,032.40	
General Society Equity 11-30-57	$133,962.62	
Net gain for period (Exhibit B)	41,058.72	$175,021.34
TOTAL EQUITIES (Exhibit C)		$439,053.74
TOTAL LIABILITIES AND EQUITIES		$453,450.66

EXHIBIT A

STATEMENT OF INCOME AND EXPENSES
Fiscal Year Ended November 30, 1958

INCOME		
Membership dues	$163,172.20	
Miscellaneous	10.00	
Interest income (Schedule 10)	8,741.85	
Amortization (Schedule 10)	660.02	$172,584.07
OTHER INCOME OR (LOSS)		
Annual Session (Schedule 2)	($2,669.46)	
Michigan Clinical Institute (Schedule 3)	(3,061.95)	
"The Journal" (Schedule 4)	9,004.16	$ 3,272.75
TOTAL INCOME		$175,856.82
EXPENSES		
Administrative and General	$ 69,272.71	
Society activity	38,886.77	
Committee expenses	26,638.62	
TOTAL EXPENSE (Schedule 1)		$134,798.10
NET GAIN		$ 41,058.72

EXHIBIT B

INCOME AND EXPENSE SUMMARY

Fiscal Year Ended November 30, 1958

	Balance 12-1-57	*Income For the Period*	*Expenses For the Period*	*Net Gain or (Loss)*	*Balance 11-30-58*
Equity—General Fund		$172,584.07	$134,798.10	$ 37,785.97	
Annual Session		26,882.50	29,551.96	(2,669.46)	
Michigan Clinical Institute	$133,962.62	13,080.00	16,141.95	(3,061.95)	$175,021.34
"The Journal"		134,433.18	125,429.02	9,004.16	
Contingent Fund	53,614.34	—0—	—0—	—0—	53,614.34
Building Fund	16,983.53	11,380.04	6,168.16	5,211.88	22,195.41
Public Education Reserve	74,084.00	17,081.25	—0—	17,081.25	91,165.25
Public Education Program	40,765.04	35,682.01	58,769.33	(23,087.32)	17,677.72
Public Service	2,761.86	19,920.66	28,091.61	(8,170.95)	(5,409.09)
Professional Relations	4,423.70	29,892.20	36,779.35	(6,887.15)	(2,463.45)
Rheumatic Fever Control Program	12,679.95	11,705.12	22,505.89	(10,800.77)	1,879.18
Headquarters Fund	28,135.00	57,238.04	—0—	57,238.04	85,373.04
TOTAL	$367,410.04	$529,879.07	$458,235.37	$71,643.70	$439,053.74

EXHIBIT C

SECURITIES OWNED—November 30, 1958

	Maturity Date	Face Value 11-30-58	Cost 12-1-57 (Book Value)	Redemption or Market Value at 11-30-58	Purchases During Period	Sales or Redemptions During Period	Amortization Debit Or (Credit)	Cost 11-30-58 (Book Value)	Interest Received To Last Interest Date
UNITED STATES GOVERNMENT SECURITIES									
Savings Bonds—Series "G"	5- 1-58	$ —0—	$ 5,000.00	$ —0—	$	$ 5,000.00	$	$ —0—	$ 62.50
Savings Bonds—Series "G"	3- 1-60	5,000.00	5,000.00	4,910.00				5,000.00	125.00
Savings Bonds—Series "G"	8- 1-58	—0—	30,000.00	—0—		30,000.00		—0—	750.00
Treasury Bond—Series "B" 2¾%	4- 1-80/75	8,000.00	8,151.73	8,000.00			(8.92)	8,142.81	110.00*
Savings Bonds—Series "K" 2.76%	6- 1-66	45,000.00	45,000.00	43,470.00				45,000.00	1,242.00
Savings Bonds—Series "K" 2.76%	7- 1-66	4,000.00	4,000.00	3,864.00				4,000.00	110.40
Treasury Bond—2¼%	6-15-62/59	25,000.00	24,791.67	23,750.00			208.33	25,000.00	562.50
Treasury Bond—2½%	3-15-70/65	10,000.00	9,814.06	8,900.00			26.56	9,840.62	250.00
Treasury Bond—2½%	11-15-61	25,000.00	24,498.44	24,250.00			167.18	24,665.62	937.50‡
Treasury Bond—2½%	11-15-61	35,000.00	34,199.38	33,950.00			266.87	34,466.25	875.00
Time Certificate— Michigan National Bank—3%	10- 7-57 30 days notice	—0—	25,000.00	—0—		25,000.00		—0—	770.84
Time Certificate— Michigan National Bank—3%	3-13-57 30 days notice	40,000.00	40,000.00	40,000.00				40,000.00	1,200.00
Savings Deposit Receipt— Michigan National Bank	10-24-57 Demand	15,000.00	15,000.00	15,000.00				15,000.00	450.00
Savings Deposit Receipt— Michigan National Bank	2-11-58 Demand	—0—	—0—	—0—	40,000.00	40,000.00		—0—	946.70
Savings Deposit Receipt— Michigan National Bank	8-27-58 Demand	30,000.000	—0—	30,000.00	30,000.00			30,000.00	—0—
Savings Deposit Receipt— Michigan National Bank	5-28-58 Demand	5,062.50	—0—	5,062.50	5,062.50			5,062.50	—0—†
TOTAL SECURITIES		$247,062.50	$270,455.28	$241,156.50	$75,062.50	$100,000.00	$660.02	$246,177.80	$8,392.44
Interest on Savings Account									307.97
Interest on Loan									41.44
TOTAL INTEREST EARNED									$8,741.85

NOTES:
*Interest due on October 1, 1958 in an amount of $110.00, was deposited on December 11, 1958.
†Interest due on November 28, 1958 in an amount of $75.93, was not deposited at November 30, 1958.
‡Interest due November 15, 1957, deposited in current fiscal year.

EXPENSES

Fiscal Year Ended November 30, 1958

ADMINISTRATIVE AND GENERAL

Printing, mailing and postage	$ 6,571.06
Office supplies	3,450.96
Insurance and fidelity bonds	2,413.85
Auditing	1,231.50
Salaries—administrative and office (including legal counsel)	31,800.40
General counsel expense	794.50
Equipment and repairs	1,572.00
Telephone and telegraph	3,944.89
Taxes (other than property)	2,666.82
Miscellaneous expenses and contributions	2,318.87
Employes retirement trust	10,553.28
International Business Machines	1,954.58
TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	$ 69,272.71

SOCIETY ACTIVITIES

Council expense	$ 16,068.40
AMA delegates and alternates	5,917.71
General society travel and entertainment	6,346.89
Officers' travel	4,956.79
Secretarys' letters and office expense	1,329.27
Womans' auxiliary	600.00
Dues collection expense	3,419.06
Residents and interns conference	228.65
TOTAL SOCIETY ACTIVITIES EXPENSES	$ 38,886.77

COMMITTEE EXPENSES

Cancer Coordinating Committee	$ 1,018.35
Child Welfare Committee	247.57
National Defense Committee	687.71
Geriatrics Committee	307.31
Industrial health	46.99
Legislative	1,346.21
Maternal health	544.92
Mental health	112.58
Michigan Health Council	10,000.00

Postgraduate medical education	4,646.28
Preventive medicine	129.57
Permanent Conference Committee	132.22
Rural Medical Service	89.31
Scientific radio	1,353.02
Tuberculosis control	366.76
Venereal disease	51.81
Beaumont Memorial Restoration	(209.29)
Highway Accident Committee	338.60
Iodized Salt	46.02
Big Look Committee	542.56
Medical Care Insurance	1,813.71
Sundry committee expense	3,026.41
TOTAL COMMITTEE EXPENSES	$ 26,638.62
TOTAL EXPENSES (EXHIBIT B)	$134,798.10

INCOME AND EXPENSE OF THE ANNUAL SESSION

Fiscal Year Ended November 30, 1958

INCOME	
Booth sales (102 spaces)	$ 26,882.50
TOTAL INCOME	$ 26,882.50
EXPENSES	
Scientific meeting	$ 4,231.65
Exhibit	3,815.23
Registration and hotel	937.51
State society and officers night	4,337.91
Promotion—printing, mailing, postage and Scientific Work Committee	4,678.19
Press expense	3,351.11
Salaries	5,593.44
House of Delegates	2,407.84
Miscellaneous expenses	199.08
TOTAL EXPENSES	$ 29,551.96
GAIN OR (LOSS) ON ANNUAL SESSION	$ (2,669.46)

INCOME AND EXPENSE OF THE MICHIGAN CLINICAL INSTITUTE

Fiscal Year Ended November 30, 1958

INCOME	
Both Sales (74 spaces)	$ 13,080.00
TOTAL INCOME	$ 13,080.00
EXPENSES	
Scientific meeting	$ 3,895.86
Exhibit	2,993.95
Registration and hotel	737.79
Promotion—printing, mailing and postage	2,973.97
Press	2,329.43
Salaries	1,160.23
Residents and interns conference	71.16
Miscellaneous expenses	1,979.56
TOTAL EXPENSES	$ 16,141.95
GAIN OR (LOSS) ON M. C. I.	$ (3,061.95)

INCOME AND EXPENSE OF "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 8,526.25
Subscriptions of others	747.20
Advertising sales	121,024.00
Reprint and cut sales	4,135.73
TOTAL INCOME	$134,433.18
EXPENSES	
Editors expense	$ 3,493.11
Printing, mailing and postage	71,222.53
Reprint and cut expense	3,781.52
Salaries	20,312.51
Discount and commissions	26,404.35
Miscellaneous expenses	215.00
TOTAL EXPENSES	$125,429.02
GAIN OR (LOSS) ON "THE JOURNAL"	$ 9,004.16

INCOME AND EXPENSE OF THE BUILDING MAINTENANCE FUND

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 11,380.04
TOTAL INCOME	$ 11,380.04
EXPENSES	
Maintenance—utilities, decorating, supplies, yard work, etc.	$ 1,951.48
Salaries—janitor	1,237.28
Property taxes	914.37
Insurance	279.18
Depreciation	1,785.85
TOTAL EXPENSES	$ 6,168.16
GAIN ON BUILDING MAINTENANCE FUND	$ 5,211.88

INCOME AND EXPENSE OF THE PROFESSIONAL RELATIONS ACCOUNT

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 29,892.20
TOTAL INCOME	$ 29,892.20
EXPENSES	
Rent to Wayne County Medical Society	$ 480.00
Salaries	20,497.14
Telephone and telegraph	500.00
Travel and entertainment	7,006.73
County secretaries—Public Relations Conference	6,563.24
Womans' auxiliary	1,732.24
TOTAL EXPENSES	$ 36,779.35
GAIN OR (LOSS) DURING PERIOD	$ (6,887.15)

INCOME AND EXPENSE OF THE PUBLIC EDUCATION PROGRAM

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 35,564.66
Other income	117.35
TOTAL INCOME	$ 35,682.01
EXPENSES	
Committee meetings	$ 221.28
Equipment and repairs	2,973.26
Printing, mailing and postage	5,627.66
Office supplies	967.81
Salaries	20,497.14
Telephone and telegraph	3,032.78
Travel and entertainment	7,528.24
Exhibit expense	2,708.51
Publications, pamphlets, clippings	639.92
Radio, television and cinema	3,347.86
Library	465.38
Miscellaneous expenses	2,095.18
Testimonial luncheon	1,307.55
Michigan Association of Professions	7,356.76
TOTAL EXPENSES	$ 58,769.33
GAIN OR (LOSS) DURING PERIOD	$(23,087.32)

INCOME AND EXPENSE OF THE PUBLIC SERVICE ACCOUNT

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 19,920.66
TOTAL INCOME	$ 19,920.66
EXPENSES	
Salaries	$ 20,497.14
Telephone and telegraph	500.00
Travel and entertainment	7,006.73
Rural health conference	87.74
TOTAL EXPENSES	$ 28,091.61
GAIN OR (LOSS) DURING PERIOD	$ (8,170.95)

(Continued on Page 442)

IN DEBILITATING DISEASE

Patients receiving NILEVAR®

Eat more...
Feel better...
Recover faster

Compared to control patients, those receiving Nilevar (brand of norethandrolone) have repeatedly demonstrated more rapid and more complete recovery from serious acute illness and increased comfort and well-being in chronic illness.

A multitude of case histories are now adding individual clinical color to the earlier controlled investigations which defined the actions of Nilevar as an effective aid in reversing negative nitrogen balance and in building protein tissue.

In typical case reports such gratifying comments as these appear:

Underweight –"Appetite considerably increased within one week. Sense of well-being and vigor increased along with increased appetite."

Prematurity (Birth weight: 2 pounds, 4 ounces) – "Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

Carcinoma of the Uterus –"Within four days appetite became excellent, took full diet. . . . More ambition while on Nilevar. Enjoys life. Takes part in church and other social affairs."

Third Degree Burn–". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

Nilevar is supplied in tablets of 10 mg., ampuls of 25 mg. (1 cc.) and Nilevar Drops of 0.25 mg. per drop.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

(Continued from Page 440)

INCOME AND EXPENSE OF THE RHEUMATIC FEVER CONTROL PROGRAM

Fiscal Year Ended November 30, 1958

INCOME	
Grant from Michigan Heart Association	$ 11,705.12
TOTAL INCOME	$ 11,705.12
EXPENSES (Central Office)	
Committee meetings	$ 249.49
Equipment and repairs	—0—
Payroll taxes	96.32
Printing, mailing and postage	287.16
Office supplies	—0—
Salaries—administrative and office	—0—
Travel	—0—
Fellowships	2,515.86
Publications and pamphlets	329.81
TOTAL CENTRAL OFFICE EXPENSES	$ 3,478.64
CONTROL CENTERS	
Alpena	$ 400.00
Ann Arbor	720.00
Bay City	285.00
Detroit	233.50
Grand Rapids	1,423.20
Kalamazoo	1,430.00
Traverse City	1,285.00
TOTAL CONTROL CENTERS	$ 5,776.70
REFUND TO MICHIGAN HEART ASSOCIATION	$ 13,250.55
TOTAL EXPENSES	$ 22,505.89
GAIN OR (LOSS) DURING PERIOD	$(10,800.77)

PROPERTY AND DEPRECIATION ALLOWANCES—November 30, 1958

	Date Acquired	Cost	Depreciation Allowance Prior Years	Remaining Cost Beginning Of Period	Estimated Life	Depreciation Expense 1958	Depreciation Allowance 11-30-58
Land 606 Townsend	1951	$ 10,000.00	$ —0—	$ 10,000.00		$ —0—	$ —0—
Building 606 Townsend	1951	34,500.00	7,254.00	27,246.00	30	1,150.00	8,404.00
		44,500.00	7,254.00	37,246.00		1,150.00	8,404.00
BUILDING IMPROVEMENTS							
New building entrance	1953	3,917.85	576.80	3,341.05	30	130.55	707.35
Remodel basement and storeroom	1956	1,746.21	82.45	1,663.76	30	58.21	140.66
		5,664.06	659.25	5,004.81		188.76	848.01
BUILDING EQUIPMENT							
Lighting	1952	2,121.50	836.85	1,284.65	15	141.43	978.28
Boiler	1952	1,714.59	676.16	1,038.43	15	114.30	790.46
PARKING LOT	1953	3,836.09	1,513.01	2,323.08		255.73	1,768.74
LOT ADJOINING OFFICE BUILDING	1952	1,913.60	845.21	1,068.39	10	191.36	1,036.57
OTHER REAL ESTATE AND DEPOSITS		6,000.00	—0—	6,000.00		—0—	—0—
Land—M-78 and Abbott Road	1958	65,646.00		65,646.00			
Deposit on adjoining lot		500.00		500.00			
Architects fees on new headquarters building		8,287.50		8,287.50			
		74,433.50	—0—	74,433.50		—0—	—0—
		$136,347.25	$10,271.47	$126,075.78		$1,785.85	$12,057.32

MEDICAL MEETINGS AND CLINIC DAYS

1959		
April		
8-9	12th Annual Rural Health Conference	Kellogg Center East Lansing
22	14th Annual Cancer Day	Merlis Brown Aud. Hurley Hospital Flint
May		
7	Ingham County Clinic Day	Lansing
13	Wayne State Univ. College of Medicine Alumni Clinic Day	Fort Shelby Hotel Detroit
June		
8-12	AMA—Annual Meeting	Atlantic City, N. J.
19-20	Upper Peninsula Medical Society	Gateway Hotel Land O'Lakes, Wisc.
25	Keyport Trauma Day—American College of Surgeons	Hidden Valley Lodge Gaylord
July		
30-31	Coller-Penberthy Clinic	Traverse City
Spring	Postgraduate Extramural Courses	State-Wide

More effective clinically

in **LOW BACK PAIN**

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BURSITIS and

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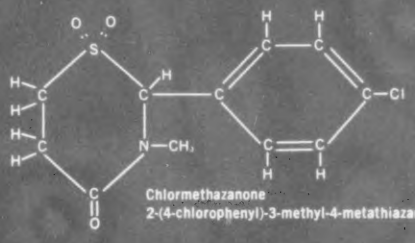
Trancopal®

the first true tranquilaxant

***Potent* MUSCLE RELAXANT**

and equally effective

***as a* TRANQUILIZER**



Chlormethazanone
2-(4-chlorophenyl)-3-methyl-4-metathiazanone-1-dioxide

Unrelated chemically to any other therapeutic agent in current use. Better tolerated and safer than older drugs.

for clinical results in 4092 patients *see inside*

Trancopal

the first true

*TRANQUILAXANT**

***Potent* MUSCLE RELAXANT**
***and equally effective as a* TRANQUILIZER**

clinical results in 4092 patients[5]

*tran-qui-lax-ant (tran'kwe-lak'sant)
[< L. tranquillus, quiet; L. laxare, to loosen, as the muscles]

Clinical Comments

"We have just started using it [Trancopal] for relaxing spastic musculature and are *very much encouraged*."[1]

Baker, University of Minnesota Medical School

"Chlormethazanone [Trancopal] not only relieved *painful muscle spasm*, but allowed the patients to resume their normal activities with no interference in performance of either manual or intellectual tasks."[2]

Lichtman, New York Polyclinic Medical School and Hospital

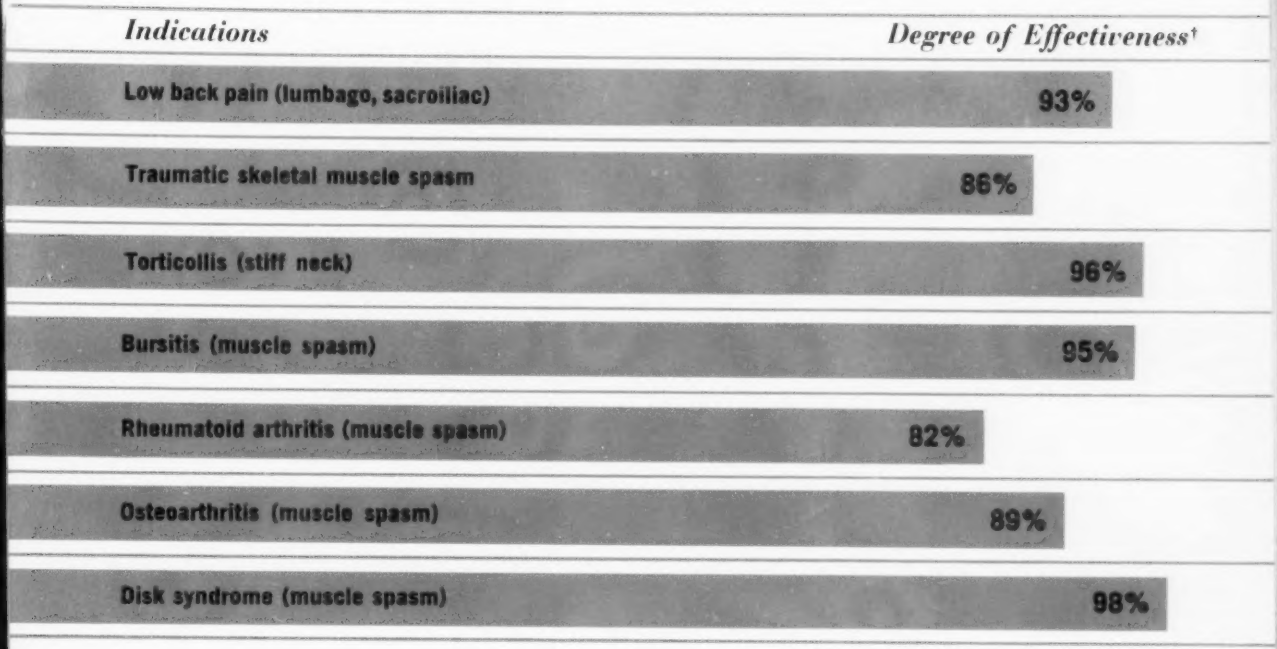
"The effect of this preparation in these cases [skeletal muscle spasm] was *excellent and prompt . . .*"[3]

Mullin and Epifano, Long Island College Hospital

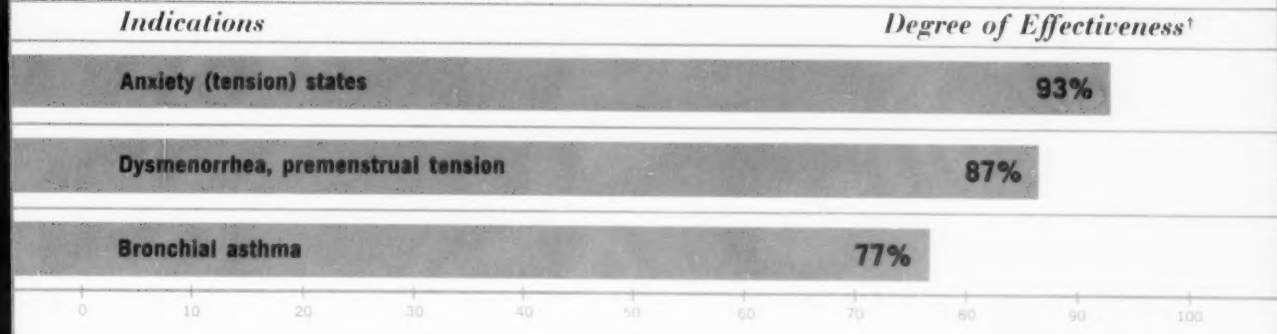
"In 120 patients with *anxiety or tension states*, 114 received satisfactory control of their condition. *Severe dysmenorrhea* and *premenstrual tension* in 65 patients refractory to the usual medications were relieved satisfactorily in 56."[4]

Lichtman

91% Effective in Musculoskeletal Disorders



89% Effective in Psychogenic Disorders



The results of clinical studies of over 4092 patients by 105 physicians demonstrate that Trancopal often is effective when other drugs have failed. From these studies it is clear that Trancopal probably can provide more help for a greater number of tense, spastic, and/or emotionally upset patients than any other pharmaceutical agent in current use.

Winthrop

†*Excellent, good and fair*

Dosage:

Usual adult dose, 1 Caplet (100 mg.) three or four times daily. Children (from 5 to 12 years), ½ Caplet (50 mg.) three or four times daily.

Supplied:

Trancopal Caplets® (peach colored, scored) 100 mg., bottles of 100 and 1000.

Trancopal

the first true tranquilaxant

***Potent* MUSCLE RELAXANT**
and equally effective
***as a* TRANQUILIZER**

ADVANTAGES OF TRANCOPAL

- Lower incidence of side effects than with zoxazolamine, methocarbamol or meprobamate.
- No known contraindications. Blood pressure, pulse rate, respiration and digestive processes unaffected by therapeutic dosage. No effects on hematopoietic system or liver and kidney function.
- Low toxicity.
- No gastric irritation. Can be taken before meals.
- No clouding of consciousness, no euphoria or depression.
- No perceptible soporific effect, even in high dosage.

INDICATIONS

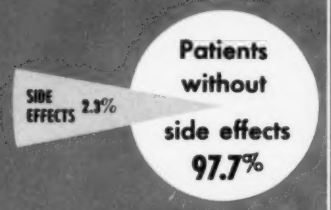
Musculoskeletal
Low back pain (lumbago)
Neck pain (torticollis, etc.)
Bursitis
Rheumatoid arthritis
Osteoarthritis
Disk syndrome
Fibrositis
Joint disorders (ankle sprain, tennis elbow, etc.)
Myositis
Postoperative myalgias

Psychogenic
Anxiety and tension states
Dysmenorrhea
Premenstrual tension
Asthma
Angina pectoris

Neurologic
Muscle spasm (in paralysis agitans, multiple sclerosis, hemiplegia, cerebral palsy)

SAFETY

Comparative pharmacologic tests showed that Trancopal is up to thirteen times as safe, or up to thirteen times less toxic. The measure of safety was the LD_{50} in mice/usual human dose.



INCIDENCE OF SIDE EFFECTS WITH TRANCOPAL IN 4262 PATIENTS.

SUPPLIED

Trancopal Caplets (peach colored, scored) 100 mg., bottles of 100 and 1000.

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Winthrop Laboratories • New York 18, N. Y.

If one . . . or all . . . needs nutritional support . . .

they
deserve

GEVRAL®

capsules—14 VITAMINS AND 11 MINERALS

Vitamin-Mineral Supplement Lederle

For Complete Formula see PDR (Physicians' Desk Reference), page 689

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

IONIZING RADIATION

While ionizing radiation has been of tremendous value to medicine both in the diagnosis and treatment of disease, the dangers to health associated with it have been recognized almost from the time this source of energy was discovered. Although these hazards were not a major concern of health departments until comparatively recent times, (because the sources of ionizing radiation were relatively limited) the Michigan Department of Health has been actively engaged in a radiological health program since well before the second world war. In fact it was the experience of official health agencies such as the Michigan Department of Health which was called on by the Atomic Energy Commission during the development of the atomic bomb.

Following World War II, the number of users of ionizing radiation has grown rapidly and the control of radiation exposure has become a significant public health problem. Responsibility for radiological health is centered in the Division of Occupational Health of the Michigan Department of Health. Its engineers have been trained in this work through scholarships from the Atomic Energy Commission, the U. S. Public Health Service, and others at such institutions as Harvard, Massachusetts Institute of Technology, University of Michigan, U. S. Public Health Service, and the Atomic Energy Commission. The division and its engineers are recognized by the Atomic Energy Commission as being competent and knowledgable in this field, and they have been accepted and cleared by the Atomic Energy Commission to receive all classified information issued by the Commission.

REGISTRATION CONTROL SHEET
December 22, 1958

Medical Equipment

Profession	Number	Therap.	Diag.	Fluoro.	Cysto	Skull	Port.	Photoflu.
M.D.	518	102	190	261	1	—	54	
D.O.	234	4	67	129			34	
D.C.	275		198	63			14	
Hospitals	234	125	209	299	24	6	217	36
Industrial	65	0	44	10			6	16
Miscellaneous	23	1	13	8			7	2
D.V.M.	35	1	25	2			7	
D.S.C.	130	3	94	2			31	

Dental Equipment

	No. Dentists	No. Machines
Michigan (except Detroit)	1591	1642
Detroit	527	572
Total	2118	2214

Radioactive Isotopes—Thorium, Radium, etc.

Industrial	43
Hospitals	54
M.D.	30
D.O.	4
Misc.	16
Total	147

Industrial

Total users	41

Miscellaneous

No. shoe stores	39
No. shoe machines	41

	M.D.	D.O.	D.C.	Hosp.	D.V.M.	D.D.S.	D.S.C.	Shoe
Total cards mailed	6600	1255	600	410	1600	3100	250	300
Estimated number using x-ray	660	300	300	410	240	2790	238	600

To provide a guide for the protection of operators and the public from radiation damage, to close gaps in protection and to integrate control activities developed over the years, the Michigan Department of Health began work some years ago on the development of rules and regulations to govern the use of radioactive isotopes, x-radiation, and all other forms of ionizing radiation. These regulations were adopted and made a part of the administrative code in January, 1958. A part of these regulations require users of materials or machines which emit

(Continued on Page 488)

All sources of ionizing radiation shall be registered with the state health commissioner by the legal owner, user, or authorized representative.

in skin disorders

Decadron*

DEXAMETHASONE

treats more patients more effectively
a new order of magnitude in corticosteroid effectiveness
a new order of magnitude in margin of safety

Striking clinical results with DECADRON are reported† in 92 percent of 319 patients with dermatological disorders, including cases previously unresponsive or resistant to corticosteroids. There were no major complications, and even minor side effects occurred in less than eight percent of patients.

Moreover, in many cases reactions induced by previous steroid therapy, such as edema, Cushingoid appearance, headache, vertigo, muscular weakness, depression, hirsutism, and glycosuria, **disappeared during therapy with DECADRON.** †Analysis of clinical reports.

Dosage: One 0.75 mg. tablet of DECADRON will usually replace one 4 mg. tablet of methylprednisolone or triamcinolone, one 5 mg. tablet of prednisone or prednisolone, one 20 mg. tablet of hydrocortisone, or one 25 mg. tablet of cortisone.

Supplied: As 0.75 mg. and 0.5 mg. scored, pentagon-shaped tablets in bottles of 100 and 1000.

MSD **MERCK SHARP & DOHME**
DIVISION OF MERCK & CO., Inc., PHILADELPHIA 1, PA.

In Memoriam

ALBERT E. BERNSTEIN, M.D., seventy-five, Detroit physician for fifty years, died January 18, 1959.

Doctor Bernstein was a graduate of the Windsor Collegiate Institute, Class of 1900, and was one of the founders of Sinai Hospital and the Maimonides Medical Society.

He was a member of Congregation Shaarey Zedek and the board of directors of the United Hebrew Schools.

HUGH WESLEY HARRISON, SR., M.D., fifty-eight, Detroit physician, died February 3, 1959.

Doctor Harrison was secretary and treasurer of the medical staff of St. Joseph Mercy Hospital and was Medical Director of the Alcoa Corporation for thirty-six years.

E. A. MARTINDALE, M.D., eighty-eight, a retired Hillsdale physician, died January 1, 1959.

Born in Hillsdale, Doctor Martindale practiced medicine for seven years at Jackson and four at Sturgis, before returning to Hillsdale.

He was a member of the College Baptist Church, Delta Tau Delta Fraternity and was a thirty-second degree Mason.

WILLIAM O. MERRILL, M.D., seventy-three, Detroit physician, died January 6, 1959.

Doctor Merrill was born in Crystal Valley, Michigan, and had been a Bloomfield Hills resident since 1935. He received his doctorate in medicine from the University of Michigan in 1909 and studied at the Universtiy of Vienna. Doctor Merrill was a captain in the medical corps during World War I. He was chief of the eye, ear, nose and throat department at Highland Park General Hospital for many years, and a Detroit practicing physician for forty-five years.

Doctor Merrill was a member of the Detroit Valley Body of the Scottish Rite, Moslem Temple and the Michigan Mineralogical Society. He held honorary life membership in the Birmingham Lodge F. and A.M., and Birmingham Chapter No. 93 Royal Arch Masons and was a charter member of Birmingham High Twelve. He was co-owner with his son of the Will-O-Way Playhouse in Bloomfield Hills. He was also a member of Christ Church, Cranbrook, and formerly served as a youth director of Central Methodist Church.

ROGER S. MORRIS, M.D., forty-seven, Ludington physician, died December 30, 1958.

Born August 12, 1911, at Cincinnati, Ohio, Doctor Morris was a 1940 graduate of the University of Chicago Medical School. He interned at Henry Ford Hospital in Detroit. Doctor Morris served four years in the Medical Corps during World War II. After the war he was resident physician at Presbyterian Hospital in Chicago and in 1949 and 1950 worked on a fellowship grant from American Cancer Society. He opened his practice in Ludington in September of 1957.

Doctor Morris was assistant professor of internal medicine at the University of Chicago, and staff member at Billings Memorial Hospital. He was a member of Grace Episcopal Church, University Club of Chicago, and the Chicago Yacht Club.

LEWIS PHELPS MUNGER, M.D., eighty-seven, Hart physician, died December 23, 1958.

Doctor Munger was a graduate of Hering Medical College in Chicago and practiced medicine in Hart from December, 1895, until his recent illness. Doctor Munger was one of the founders of the Oceana Hospital Association and served on its board of directors until 1952. He was vice president of Oceana County Bank at Hart and chairman of the board of directors of Oceana Canning Company at Shelby for many years. Doctor Munger was a member of Wigton Lodge 152, Free and Accepted Masons.

Doctor Munger was a pioneer cherry grower in West Michigan and was recognized at the largest individual grower in the United States.

HERMAN H. RIECKER, M.D., sixty-four, Ann Arbor physician, died January 4, 1959.

Doctor Riecker had been a St. Joseph Mercy Hospital physician and staff member since 1926. He had been an assistant professor in internal medicine and cardiology at the University of Michigan from 1926 to 1942.

Known for his work in organizing the rheumatic fever control program of Michigan, Doctor Riecker led in establishment in 1944 of the Rheumatic Fever Control Committee of the Michigan State Medical Society to direct efforts to train doctors to recognize the disease, set up diagnostic centers and provide care.

He received his medical degree from Johns Hopkins University in 1923, after serving in the U. S. Army during 1917-19. He was an emeritus member of the American Society of Clinical Investigators and a member of the Central Society of Clinical Research.

ANDREW G. STANKA, M.D., seventy-nine, Grand Ledge physician, died December 19, 1958.

Doctor Stanka was a graduate of the University of Michigan, Class of 1909. He was born in 1897 near the city of Bromberg, Germany. This veteran general practioner was also known as a hunter and was named Sportsman of the Year at the Jaycee Hunter's Stag in 1954. He was a member of the Masonic Order of Eastern Star and Odd Fellows lodges and his biography was recorded in the Biographical Encyclopedia of the World.

During the last twenty-five years of his life, Doctor Stanka took many trips to various parts of North America, the Hudson Bay basin, British Columbia, Alaska and Kodiak Island.

Communications

Dr. Howard Benjamin
Grand Rapids, Michigan

Dear Dr. Benjamin:

At the last two KCMS meetings, there was much discussion by a few members about the new M-75 MMS plan, as a whole rather opposed to it. There were many of us there who listened only, and I for one was not prepared to give rebuttal to these views. It has been my understanding that this plan was accepted in good faith for trial. Further discussion would be in regard to how well it worked and to modify it for improvement. Here, we have had discussion denouncing it, before it has gone into effect. It is like wanting divorce before the marriage has been consummated.

As one who has signed up as a participant in this plan, I would like to support MMS in its attempt to create plans for care of the people, regardless of age and past medical history. This is not an insurance plan. It is prepaid medical care. There is no profit motive behind it. This was not an ill-conceived plan by the physicians of 20 years ago. They had a problem on their hands and went about solving it. The MMS has done a magnificent job in the past against all odds. It was shown that a prepaid medical care plan could be financially sound.

As a consequence, insurance companies have entered the field for profit. They do not cover everyone. One must be fit physically to be able to get this coverage, and the policies are usually cancellable. Similarily, labor unions and management both, such as UMW and The Permanente Foundation, tend to cover mainly this group of people, and without free choice of physician. This leaves the government and the Blue plans as the only ones which give complete coverage to anyone who cares to join.

Since we believe in the free enterprise system of competition, we have to be actively engaged in this competition. If we can't offer a product better, as cheap, and covering more people than any of these other plans, then we are going to be out of business and absorbed by others.

We are not in the practice of medicine for profit. There is no capital gains tax applicable for our services. We, as medical men, dedicated to relieve pain and suffering regardless of economic class, should and must be producers of medical health plans which will cover anyone. We must be active and dynamic about this, not passive, in the spirit of the founders of MMS. In order to keep medicine free and under our control, we must produce, and that is what MMS is trying to do. Admittedly, there are inequities regarding fee schedules, but these can and will be resolved.

We say that we are not going to be dictated to or forced to do anything by the government, labor unions, or anyone else. Laws change by the will of the people. Pressure groups force their will by lobbying. The one way we can keep these parties in check is by convincing them we have the best plans available. In so doing, we must work from the premise of what is best for the people, as we have always done, and not, first, what is best for us. This is no time to rebel and resign from something we were a party to. Co-operation is more important now than ever before. As members of the MSMS, we have recourse to improve upon these plans at intervals. Let us continue to improve upon the work of the founders of the MMS, a well conceived idea which has and still can work.

Sincerely,
MICHAEL E. ELLIS, M.D.

Grand Rapids, Michigan
October 1, 1958

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Lowers blood pressure — maintains mental alertness

calms the patient under stress

Rautensin provides a smooth, gradual and sustained reduction of blood pressure without sudden rebounds or abrupt declines.[1] Rautensin's tranquilizing properties calm the tense and anxious hypertensive without impairing alertness, without producing excessive lethargy or drowsiness.

The risk of Rauwolfia-induced depression is markedly reduced since the alseroxylon fraction alone is used.[2] Even on long-term administration side actions "...are either completely absent or so mild as to be inconsequential."[3]

Rautensin®

Each tablet contains 2 mg. of the purified alseroxylon complex of Rauwolfia serpentina

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Legal Opinion

IMPORTANT FAR-REACHING COURT DECISION

The American College of Physicians has joined Cutter Laboratories in appealing the decision of January 17, 1958, of the Superior Court in Alameda County awarding two children, Anne Elizabeth Gottsdanker and James Randall Phipps, damages for polio infections allegedly resulting from the use of Cutter vaccine despite the jury's finding that Cutter Laboratories was not negligent.

In its amicus curiae brief (friend of the Court), it points out:

"The creation of an absolute liability concept would greatly impair future progress. The introduction of new products and procedures would be stifled and mankind would be denied the continual advancement of medical science. . . . We believe that when, as in the cases before the court at this time, a biological is made according to strict government specifications and complies with the best scientific and productive knowledge available and when the manufacturer is absolved of all possible negligence by the jury, as this defendent was, no liability should be incurred when an injury occurs because of the user's own peculiar susceptibility or because of insufficient scientific knowledge at that time. To create such an absolute liability would be to saddle the world of medical science with an unfair burden. . . . We in no way feel that we are over-dramatizing these results for it is clear that researchers would be unwilling to try new drugs on patients, practicing physicians would be afraid to avail themselves and their patients of the new wonder drugs and pharmaceutical houses would not be willing to manufacture new products should this concept be applied, for it holds the defendent liable without fault and liable for the unknown.

"Since the fact is self-evident that certain treatments will save lives or alleviate suffering, it is unrealistic and unreasonable to say that there must be no unknown untoward effects. If we take this position, then the conquering of disease in the future will be far slower, as neither manufacturers nor insurance companies can afford to insure against the unknown and the unpreventable. Thus, the lifesaving drug or biological that may save thousands of lives every year from cancer which might be available tomorrow would probably, under the absolute liability situation, be withheld for another ten years of testing and 'wait and see' and 'make sure' periods. To be sure, a statistically small number of hypersensitive or hypersusceptible individuals will thus be saved from harm, but in the meantime thousands who might otherwise live, or live without suffering, will necessarily be denied medical care.

"How can any scientist, physician, hospital or pharmaceutical producer become involved in any forward steps in medicine, no matter how surrounded by standards, if he is to be held responsible for knowledge that does not, and cannot exist until the future unfolds."

. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Winthrop N. Davey, M.D., Ann Arbor, is the author of an article entitled "The Chemotherapy of Tuberculosis," published in *GP*, January, 1959.

Fred G. Blum, Jr., M.D., Keith Gates, M.D., and **Burton R. James, M.D.**, Ann Arbor, are the authors of an article entitled "How Important Are Peripheral Fields?" published in *AMA Archives of Ophthalmology*, January, 1959.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled "Hyaline Bodies of Ganglion-Cell Origin in the Human Retina," published in *AMA Archives of Ophthalmology*, January, 1959.

Wm. B. Hubbard, M.D., Flint, is the author of an article entitled "An Improved Binocular Magnifier," published in *AMA Archives of Ophthalmology*, January, 1959.

John W. Keyes, M.D., and **Franz J. Berlacher, M.D.**, Detroit, are the authors of an article entitled "Chlorothiazide (Diuril)—A New Nonmercurial Orally Given Diuretic," read in the Symposium on "The Newer Diuretics—especially Chlorothiazide—Indications and Reported Use" before the Section on General Practice at the 107th annual meeting of the American Medical Association, San Francisco, June 26, 1958, and published in *Journal of the American Medical Association*, January 10, 1959.

Seward E. Miller, M.D., Ann Arbor, is the author of an article entitled "Government's Role in Preventive Medicine," presented at Lake Logan Conference, Lake Logan, North Carolina, May, 1958, and published in *Industrial Medicine and Surgery*, January, 1959.

James A. Mayer, M.D., Goldsboro, North Carolina (formerly of Ann Arbor), is the author of an article entitled "A Statistical Study of Lymphoblastoma in the Necropsy Series at the University of Michigan Hospital III. Organs Involved," published in the *University of Michigan Medical Bulletin*, October, 1958.

Arthur C. Curtis, M.D., and **Donald S. Schuster, M.D.**, Ann Arbor, are the authors of an article entitled "Laboratory Diagnosis, Biology, and Treatment of Syphilis," published in *Clinical Medicine*, December, 1958.

F. D. Stimpert, Ph.D., I. W. McLean, Jr., Ph.D., and **B. I. Wilner, Ph.D.**, Detroit, are the authors of an article entitled "Poliomyelitis Vaccine: A Story of Its Development," read at the fall meeting of the Industrial Research Institute, Washington, D. C., and published in *South Dakota Journal of Medicine and Pharmacy*, December, 1958.

Jack C. Westman, M.D., Ann Arbor, is the author of an article entitled "An Appraisal of Home Blood-Pressure Readings in the Management of Hypertension," published in the *University of Michigan Medical Bulletin*, November, 1958.

William Hoatt, M.D., and **E. H. Watson, M.D.**, Ann Arbor, are the authors of an article entitled "Vaccination with Asian Influenza Vaccine," published in the *University of Michigan Medical Bulletin*, November, 1958.

Giles G. Bole, Jr., M.D., and **Oscar W. Thompson, M.D.**, Ann Arbor, are the authors of an article entitled "Acute Mumps Pancreatitis: A Case Report," published in the *University of Michigan Medical Bulletin*, November, 1958.

Robert G. Lovell, M.D., Ann Arbor, is the author of an article entitled "Medical Student Research, 1957-58," published in the *University of Michigan Medical Bulletin*, November, 1958.

Reed M. Nesbit, M.D., and **Arjan D. Amar, M.D.**, Ann Arbor, are the authors of an article entitled, "Report of a Case of 25-Year Survival After Archiectomy," published in the *Journal of the American Medical Association*, January, 17, 1959.

Henry Gall, M.D., and **Irvin J. Kurtz, M.D.**, Detroit, are the authors of an article entitled "Simple Renal Cyst in Children," published in the *AMA Journal of Diseases of Children*, September, 1958.

George Moriarity, M.D., Roland Bron, M.D., Victor Doig, M.D., Aaron Farbman, M.D., Ovis Wagg, M.D., James Horvath, M.D., Aage Nielsen, M.D., and **Henry Vandenberg, M.D.**, Detroit, are the authors of an article, "Gems and Stratagems I—1958 Meeting, American College of Surgeons," published in *Harper Hospital Bulletin*, November-December, 1958.

Richard M. Hall, M.D., Detroit, is the author of an article entitled "A Ten-Year Review of Hip Fractures (1947-56)," published in *Harper Hospital Bulletin*, November-December, 1958.

Reuben Lopatin, M.D., and **Jack Kaufman, M.D.**, Detroit, are the authors of an article entitled "Acute Hemorrhagic Leukoencephalitis — Case Report," published in *Harper Hospital Bulletin*, November-December, 1958.

R. Songe, M.D., Detroit, is the author of an article entitled "Lipomas of the Colon," published in *Harper Hospital Bulletin*, November-December, 1958.

Henry J. Vandenberg, Jr., M.D., and **Harry C. Saltzstein, M.D.**, Detroit, are the authors of an article entitled "Notes—1958 Meetings of the James Ewing and Head and Neck Surgeons Societies," published in *Harper Hospital Bulletin*, November-December, 1958.

Robert G. Lovell, M.D., Ann Arbor, is the author of

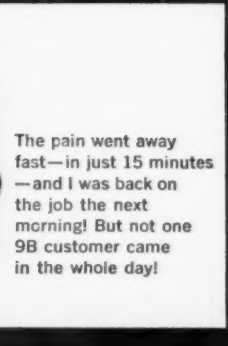
(Continued on Page 460)

REACHING FOR THOSE 9B's NEARLY PUT ME ON THE SHELF...

Reaching for 9B shoes and other top shelf sizes is no joke . . . it gave me a terrible kink in my back.

Before the day was over, I could hardly stoop to push a shoehorn.

I called my doctor that night and picked up the tablets he prescribed.



The pain went away fast—in just 15 minutes—and I was back on the job the next morning! But not one 9B customer came in the whole day!

Percodan®-Demi & Percodan® *Tablets*

Salts of Dihydrohydroxycodeinone and Homatropine, plus APC

FOR PAIN

ACTS FASTER — usually within 5-15 minutes. **LASTS LONGER** — usually 6 hours or more. **MORE THOROUGH RELIEF** — permits uninterrupted sleep through the night. **RARELY CONSTIPATES** — excellent for chronic or bedridden patients. **VERSATILE** — new "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula, with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law permits oral prescription.

Each PERCODAN® Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

AND THE PAIN WENT AWAY FAST

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*U.S. Pat. 2,628,185

(Continued from Page 458)

an article entitled "Counseling in the Medical School Using a Peer Rating System," published in *The New Physician*, February, 1959.

H. Marvin Pollard, M.D., William A. Gracie, Jr., M.D., and **James C. Sisson, M.D.,** Ann Arbor, are the authors of an article entitled "Extrahepatic Complications Associated With Cirrhosis of the Liver," read before the Section on Gastroenterology and Proctology at the 107th annual meeting of the American Medical Association, San Francisco, June, 1958, and published in the *Journal of the American Medical Association*, January 24, 1959.

Paul A. Lindquist, M.D., Battle Creek, is the author of an article entitled "Chemical and Biological Warfare," published in the *Journal of the American Medical Association*, January 24, 1959.

Paul S. Parrino, M.D., Battle Creek, is the author of an article entitled "National Shelter Program," published in the *Journal of the American Medical Association*, January 24, 1959.

Hermann Pinkus, M.D., Detroit, is the author of an article entitled "Embryology of Hair," published in *The Biology of Hair Growth*, 1958.

R. L. Brier, M.D., Mobile, Alabama, and **C. H. Steele, M.D.,** Detroit, are the authors of an article entitled "Mycosis Fungoides: A Prolonged Course and Association with Adenocarcinoma of the Breast," published in *Southern Medical Journal*, Journal of the Southern Medical Association, July, 1958.

Robert J. Schoenfeld, M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "The Recurrence of Nevi After Incomplete Removal," presented at the Clinical Melanoma Conference, Houston, Texas, November, 1957, and published in *AMA Archives of Dermatology*, July, 1958.

Edward W. Kelly, Jr., M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "Oral Treatment of Keloids," published in *AMA Archives of Dermatology*, September, 1958.

Harold Plotnick, M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "The Epidermal vs. the Dermal Fingerprint," published in *AMA Archives of Dermatology*, January, 1958.

Julin Fan, M.D., Detroit, is the author of an article entitled "Epidermal Separation with Purified Trypsin," published in *The Journal of Investigative Dermatology*, June, 1958.

Herschel S. Zackheim, M.D., Royal Oak, is the author of an article entitled "Polyethylene Squeeze Bottles for Potassium Hydroxide Solutions," published in *AMA Archives of Dermatology*, July, 1958.

Julin Fan, M.D., and **Rosie Hunter** are the authors of an article entitled "Langerhans Cells and the Modified Technic of Gold Impregnation by Ferreira-Marques," published in *The Journal of Investigative Dermatology*, August, 1958.

James Barron, M.D., Birmingham, is the author of an article entitled "The Use of Jejunal and Ileal Loops in

(Continued on Page 462)

Of course, women like "Premarin"®

THERAPY for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

The patient isn't alone in her devotion to this natural estrogen. Doctors, husbands, and family all like what it does for the patient, the wife, and the homemaker.

When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

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(Continued from Page 460)

Stomach and Colon Surgery," published in *Henry Ford Hospital Medical Bulletin*, December, 1958.

Lee B. Stevenson, M.D., and **Melvern A. Ayers, M.D.,** Detroit, are the authors of an article entitled "Hamartoma," presented before the Wisconsin Society of Obstetrics and Gynecology, October, 1958, and published in the *Henry Ford Hospital Medical Bulletin*, December, 1958.

Luis A. Tomatis, M.D., Rodman E. Taber, M.D., F.A.C.S., Conrad R. Lam, M.D., F.A.C.S., and **Edward W. Green, M.D.,** Detroit, are the authors of an article entitled "Experimental Studies with Low Oxygen Flow Rates in the Bubble Oxygenator," published in *Henry Ford Hospital Medical Bulletin*, December, 1958.

Harry M. Nelson, M.D., and **Padraic Carney, M.D.,** Detroit, are the authors of an article entitled "Ovarian Tumors and Pregnancy," published in *Clinical Medicine*, January, 1959.

Harry Vandercamp, M.D., and **Ann Morgan, M.D.,** Battle Creek, are the authors of an article entitled "General Practitioner and Mental Disorders," published in *Medical Times*, December, 1958.

Joseph G. Molner, M.D., M.P.H., Lansing, is the author of an article entitled "The Role of the Practicing Physician in Public Health," read at the annual meeting of the Iowa Academy of General Practice, Des Moines, September, 1958, and published in *The Journal of Iowa State Medical Society*, February, 1959.

Herschel S. Zackheim, M.D., Royal Oak, and **Hermann Pinkus, M.D.,** Monroe are the authors of an article entitled "Calcium Chloride Necrosis of the Skin," published in *AMA Archives of Dermatology*, August, 1957.

Edward W. Kelly, Jr., M.D., Detroit, and **Hermann Pinkus, M.D.,** Monroe, are the authors of an article entitled "Report of a Case of Pachyonychia Congenita," published in *AMA Archives of Dermatology*, June, 1958.

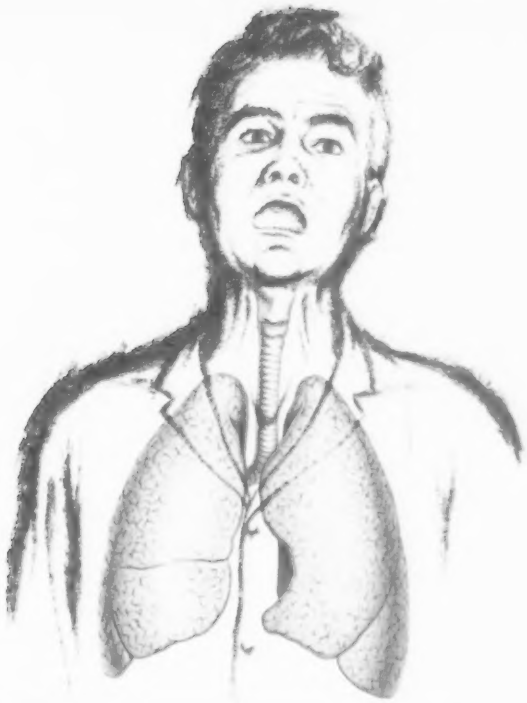
Robert J. Schoenfeld, M.D., Detroit, is the author of an article entitled "Subcorneal Pustular Dermatosis," published in *AMA Archives of Dermatology*, November, 1958.

Hermann Pinkus, M.D., Detroit, is the author of an article entitled "The Concept of Symbiosis Applied to Normal and Abnormal Growth in the Human Epidermis," published in *Dermatologica*, International Journal of Dermatology, Vol. 117, No. 5, 1958.

George W. J. Smith, M.D., Leonard Uhr, Ph.D., John C. Pollard, M.B., B.S. (London), and **James G. Miller, M.D., Ph.D.,** are the authors of an article entitled "An Exploratory Study of the Behavioral Effects of Suavitil (Benactyzine Hydrochloride)" published in the *University of Michigan Medical Bulletin*, October, 1958.

P. Blaquier, M.D., James Conway, M.D., and **S. W. Hoobler, M.D.,** Ann Arbor, are the authors of an article entitled "The Use of a New Ganglion-Blocking Agent, 'Ostensin,' in Severe Hypertension," published in the *University of Michigan Medical Bulletin*, October, 1958.

(Continued on Page 466)



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References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. 257:278 (Aug.) 1957.

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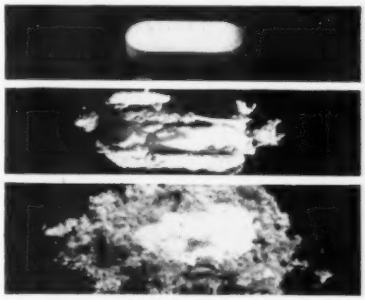

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(Continued from Page 462)

R. D. Currier, M.D., and **M. R. Westerberg, M.D.,** Ann Arbor, are the authors of an article entitled "Evaluation of a Salicylamide Compound in the Treatment of Headache," published in the *University of Michigan Medical Bulletin,* October, 1958.

R. M. Nesbit, M.D. and **A. D. Amar, M.D.,** Ann Arbor, are authors of clinical notes entitled "Choriocarcinoma," which appeared in *The Journal AMA,* January 17, 1959.

W. C. Shands, M.D., and J. Harvey Johnston, Jr., M.D., Jackson, are the authors of an article entitled, "Aneurysm of the Splenic Artery," published in AMA *Archives of Surgery,* December, 1958.

John D. Rodger, M.D., Bellaire, Michigan, is the author of an article entitled, "Objectives For State Medical Society Traffic Safety Committees," published in the *Journal of the American Medical Association,* December 27, 1958. This paper was read in the Symposium and Panel Discussion on Motor Vehicle Accidents and Their Prevention in the Session on Traffic Accidents before the Section on Miscellaneous Topics at the 107th Annual Meeting of the American Medical Association, San Francisco, June 25, 1958.

J. DeWitt Fox, M.D., Detroit, is the author of an article entitled, "Unique Movable Footrest For Elevation of the Lower Extremity," published in the *Journal of the American Medical Association,* November 22, 1958.

C. C. Santos, M.D., and **R. B. Sweet, M.D.,** Ann Arbor, are authors of an original article "Balanced Analgesia for the Poor-Risk Patient Undergoing Thoracic Surgery" which appeared in JAMA, December 13, 1958.

Brita McLean, M.D., Frank G. Talbot, M.D., and **William Jend, Jr., M.D.,** Detroit, are authors of an original article "Detection of Uterine Cancer in Industry" in the AMA *Archives of Industrial Health,* September, 1958. This article reported a mass screening survey and a cytotechnicians training program. Assisting in planning the program were Osborne A. Brines, M.D.; E. R. Jennings, M.D., and Harry M. Nelson, M.D., Detroit. Esther Dale, M.D., and Frank Eurs, M.D., made the cytological studies.

* * *

The November issue of *Industrial Medicine and Surgery,* which features Light and Vision, has several articles contributed by Michigan men:

W. A. Stannard, General Lighting Sales Supervisor of Consumers Power Company, Jackson, "Maintaining Lighting Levels in the Office"

B. S. Pritchard, Associate Research Engineer, Engineering Research Institute, University of Michigan, Ann Arbor, "Light and Its Measurements"

Floyd Sell, Supervisor of Commercial Sales, The Detroit Edison Company, Detroit, "The Four Factors of Seeing"

(Continued on Page 468)

(Continued from Page 466)

H. Richard Blackwell, Ph.D., Departments of Psychology and Ophthalmology and Vision Research Laboratories, University of Michigan, Ann Arbor, "A Generalized Method for Specification of Interior Illumination Levels"

Robert A. Boyd, Ph.D., Research Physicist, Engineering Research Institute, University of Michigan, Ann Arbor, "Daylighting"

George D. Clayton, Detroit, of George D. Clayton & Associates, "Making A Lighting Survey."

* * *

Discrimination Against the Aged.—The West Virginia State Medical Association Legislative Bulletin, reports that The Council of the West Virginia State Medical Society voted unanimously in favor of the enactment of *Senate Bill 135* which would make it unlawful for an employer or licensing agency to refuse to employ or to terminate from employment an individual because he is between the ages of forty-five and sixty-five.

* * *

The Editor has received a small ten-page booklet with a stiff cover entitled *"Prognosis" Research Is What You Make it.* This is Volume 1, Number 1, dated January, 1959, of a publication which the publishers plan to distribute among physicians and pharmacists.

* * *

Dr. Robert E. Stowell, Professor of Pathology at the University of Kansas Medical School, moderated a slide seminar on Histochemistry for the Michigan Pathological Society at Henry Ford Hospital, February 14, 1959. The seminar, which studied the histologic changes of tissue with associated biochemical alterations, is the first such seminar to be conducted in Michigan and represents an important milestone in the progress of clinical pathologists toward providing more complete diagnostic laboratory services.

Dr. Stowell, who received his medical degree from Stanford University in 1941, also holds a degree of Doctor of Philosophy in Pathology from the University of Washington. He is a consultant for the Atomic Energy Commission and the U. S. Public Health Service.

* * *

Sixty-five members of the American College of Physicians attended a one-week postgraduate course in gastroenterology at The University of Michigan Medical Center, November 10, 1958. Director of the course was H. Marvin Pollard, M.D., professor of internal medicine. The program was the third in a series of eight being held at major medical centers in the East and Midwest.

Thirty members of the University of Michigan staff and fourteen visiting lecturers presented summaries on research, diagnosis and treatment in the different branches of the field.

One highlight of the course was an address by C. G. Child, III, M.D., newly appointed chairman of the University of Michigan Department of Surgery. The physicians also had one presentation by live color tele-

(Continued on Page 470)

New concept in patient feeding

THE BARRON FOOD PUMP

SMALL CALIBER INTUBATION TUBE

CONTROLLED FORCED TUBE FEEDING

REPLACEMENT OF UPPER GASTRO-INTESTINAL FLUIDS

ALIMENTARY INGESTION OF NATURAL FOODS

ALL ESSENTIAL NUTRIENTS FOR CELLULAR METABOLISM

The restoration and maintenance of proper nutrition, fluid, and electrolyte balance is an ever present problem in the care of many medical and surgical patients. Increasing evidence stresses more and more the complexity of the nutritional needs of the human body. From the known nutrients of a generation ago the number of factors known to be necessary for healthy cellular metabolism has greatly increased, and undoubtedly, even more will be discovered in the future.

The BARRON FOOD PUMP permits an adjustable controlled administration of liquified natural foods through a small (2.5mm) caliber plastic intubation tube at a regulated constant rate of delivery while the patient is allowed to sit up, lie down, or turn on either side as desired.

The BARRON FOOD PUMP also provides a means by which gastric juice, bile, pancreatic, and other upper gastro-intestinal fluids containing essential electrolytes, enzymes, etc. can be returned to the body by adding them to the food bottle.

The mechanically proven construction of the BARRON FOOD PUMP with its silent operation requiring a minimum of nursing attention makes it not only a necessity in most tube feeding cases, but provides a wider range of application of this preferred method of patient feeding.

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(Continued from Page 468)

vision—a demonstration by Ludovic O. Standaert, M.D., on methods of examining the abdomen.

Guest faculty members for the course included: J. Edward Berk, M.D., Audrey K. Brown, M.D., and Louis A. Schwartz, M.D., all of Wayne State University College of Medicine, Detroit; R. W. Brauer, M.D., U. S. Naval Radiological Defense Laboratory, San Francisco; Clifford J. Barborka, M.D., Northwestern University School of Medicine, Chicago; Joseph B. Kirsner, M.D., University of Chicago School of Medicine, Chicago; G. Gordon McHardy, M.D., Louisiana State University School of Medicine, New Orleans; Franz J. Ingelfinger, M.D., Boston University School of Medicine, Boston; Hugh R. Butt, M.D., University of Minnesota (Mayo Foundation), Rochester; Charles A. Flood, M.D., Columbia University College of Physicians and Surgeons, Richard H. Marshak, M.D., The Mount Sinai Hospital, and Hans Popper, M.D., Columbia University of Physicians and Surgeons, all of New York City; Leslie T. Webster, Jr., M.D., Western Reserve University School of Medicine, Cleveland; and Henry L. Bockus, M.D., University of Pennsylvania Graduate School of Medicine, Philadelphia.

* * *

Fifteen senior medical students from the National University of Mexico arrived in Ann Arbor Friday, January 30, for a month-long seminar at The University of Michigan Medical Center.

Arranged by the two Universities through the U. S. Department of State, the seminar opened extensive professional exchanges within the Americas.

The Mexican students had a two-day orientation over the week-end, and then began regular classes at the University of Michigan, Monday, February 2.

Each visiting student was paired with a senior in the University of Michigan Medical School, and they attended regular classroom activities and clinical sessions together.

The fifteen were divided according to special fields of interest, including medicine, surgery, obstetrics, radiology, pediatrics and psychiatry.

Throughout the month, clinical work was chiefly limited to the morning hours. Afternoons were devoted to special lectures, tours and demonstrations of University of Michigan medical resources.

Prof. Marvin Felheim of the English Department gave a seminar on American civilization for the visitors.

Medical coordinator of the seminar was Sibley W. Hoobler, M.D., of the Department of Internal Medicine at the University of Michigan Medical Center. Dr. Hoobler flew to Mexico City to select the fifteen visitors from thirty candidates chosen by the faculty of the National University. Chosen on the basis of grades, personality and potential for future leadership in medicine, the group represented the top five per cent of the senior class at the University of Mexico Medical School, the oldest medical school in the Americas.

President of the Michigan State Medical Society, G.

(Continued on Page 472)

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is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

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with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

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(Continued from Page 470)

B. Saltonstall, M.D., extended greetings from Michigan doctors and the American Medical Association.

Following their month-long experience at the University of Michigan, the visitors made a two-week tour of the northeastern United States, escorted by Mr. Clifford Miller, administrative assistant of the University's International Center. Their itinerary took them to Cleveland, Ohio (March 1), Buffalo and Albany, New York (March 2, 3), Boston, Mass. (March 4-6), New York City (March 6-9) and Washington, D. C. (March 9-15). From Washington they flew back to Mexico City.

* * *

A treatment center for alcoholism opened at Detroit's Receiving Hospital on January 13 under the direction of the Wayne State University department of psychiatry. The Alcoholic Center will be part of Receiving's outpatient clinic, will be supported by the State Board of Alcoholism.

James H. Graves, M.D., clinical director of the hospital's department of psychiatry and assistant professor at Wayne State, will administer the program.

Long-term and specialized care for a selected group of alcoholics will be given. Wayne medical students will then evaluate different types of psychiatric treatment used.

The admission rate and number of alcoholics treated at Receiving Hospital is the highest in the country, except for New York's Bellevue Hospital.

* * *

American Medical Education Foundation Record Year.—The contributions received by AMEF in 1958 established new records, both in amount and numbers of contributors. The 15 per cent jump in income over 1957's total of $984,884 is certain to be matched by an equally large increase in the number of givers, although the final count of contributors is not, as yet, available. The month of December established a record for a thirty-day period with over $540,000 being received. The AMEF headquarters staff received compliments for its work in processing each of the 6,500 checks received during the month.

* * *

The American Academy of General Practice will hold its annual meeting in San Francisco's Civic Auditorium, April 6-9, 1959. The Congress of Delegates will convene at 2 P.M. Saturday, April 4, in the Fairmont Hotel until noon, Monday, April 6. A very elaborate program will greet the 7,000 who are expected to attend.

* * *

The American College of Surgeons will hold its first Canadian four-day sectional meeting in Montreal, for surgeons and nurses, April 6-9.

(Continued on Page 476)

Relieve moderate or severe pain

Reduce fever

Alleviate the general malaise of upper respiratory infections

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CODEINE PHOSPHATE*

maximum codeine analgesia/optimum antipyretic action

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...from moderate to severe pain complicated by tension, anxiety and restlessness.

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Codeine Phosphate	gr. ½
Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

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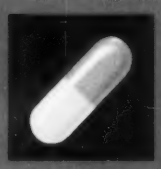

Codeine Phosphate	gr. ¼
Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

...from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

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Acetophenetidin	gr. 2½
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Caffeine	gr. ½

...from mild pain complicated by tension and restlessness.

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Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

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(Continued from Page 472)

Harry S. Morton, M.D., chairman, assistant professor of surgery, McGill University Faculty of Medicine, Montreal, and Charles Edouard Hebert, M.D., co-chairman, clinical professor of surgery, University of Montreal Faculty of Medicine, are heading the Committee on Arrangements. The program for the joint nurses session is headed by Miss Moyra Allen, McGill University, and Sister Denise Lefebvre, Institute Marguerite d'Youville. The meeting will be held April 6 to 9, 1959, with headquarters at the Queen Elizabeth Hotel. The program will include hospital clinics, panel discussions, symposia, scientific papers, technical exhibits, medical motion pictures and cine clinics in general surgery and the surgical specialties of anesthesiology, ophthalmic surgery, otolaryngology, urology, orthopedic surgery, and gynecology-obstetrics.

* * *

The annual Postgraduate Course on Otolaryngology will be held in University Hospital, April 16, 17 and 18, 1959. The annual Ophthalmology Conference will be held on April 20, 21 and 22, 1959 at the Department of Postgraduate Medicine, Horace H. Rackham School of Graduate Studies.

* * *

Legal aspects of public health were reviewed in a three-day conference starting Monday, Februray 2, at The University of Michigan School of Public Health. The program included sessions on the enforcement of public health laws in both civil and criminal actions, and the legal responsibilities of health officers. Participants included U-M faculty members, officers of state and county health departments, and attorneys interested in the health field.

About 100 persons attended. The conference was planned by the School of Public Health, the Michigan Department of Health, and the State Bar Association. Chairman of the program was Douglas H. Fryer, M.D., Director of the Division of Local Health Administration of the Michigan Department of Health.

* * *

A $2,500 graduate fellowship in public health this year is being offered by the Michigan Tuberculosis Association. The Werle-Bennett Graduate Fellowship is intended to encourage persons to enter the fields of tuberculosis and public health and to encourage graduate study in public health. The fellowship is available to residents of Michigan with a bachelor's degree from a recognized college or university who are eligible for admission to the University of Michigan School of Public Health. The recipient will be asked to work in Michigan's voluntary TB field or in public health for two years following graduation. Application forms and further information about the fellowship may be gotten by writing to the Michigan Tuberculosis Association, 403 Seymour Avenue, Lansing 14. Deadline for applying for the Werle-Bennett Fellowship is April 1.

* * *

Hospital Transfer Asked.—A recommendation that Northern Michigan Sanatorium at Gaylord be transferred to the Michigan Department of Health for treat-

ment of mentally retarded children was made January 5 to Gov. G. Mennen Williams by a citizens committee on mental health. If the legislature accepts the committee proposal, sixty-six tuberculous patients would be moved out of the hospital. Tuberculosis control facilities for taking chest x-rays, interpreting films, and medical consultation would be needed for the thirty counties now served by the tuberculosis hospital. With room for 176 tuberculosis patients, the hospital has operated at less than 50 percent of capacity in recent years. The citizens committee said more than 200 mentally retarded children could be cared for at the Gaylord hospital.

* * *

Mount Carmel Mercy Hospital Clinic.—The twentieth annual Clinic Day presented by the Staff of Mount Carmel Mercy Hospital was held January 28, 1959. Five outstanding papers were presented, and a complimentary luncheon was prepared by the Sisters of Mercy.

* * *

Arthur J. Vorwald, M.D., of Wayne State University College of Medicine was one of fifteen representatives from seven countries to meet in South Africa, February 9 to 21, to discuss their problems with pneumoconiosis, a chronic inflammation of the lungs caused by the inhalation of dust—mostly mineral.

Other delegates from the United States were: Theodore F. Hatch, Professor of Industrial Health Engineering, University of Pittsburgh; O. A. Sander, M.D., of Milwaukee.

The three Americans met in Johannesburg with scientists from the United Kingdom, Belgium, Germany, France, Switzerland and Northern Rhodesia at the invitation of the Pneumoconiosis Research Unit of the South African Council for Scientific and Industrial Research.

In addition to giving a series of papers, the delegates visited several uranium mines and their medical clinics in an attempt to solve the African pneumoconiosis problem from both a research and clinical standpoint.

Dr. Vorwald's itinerary included a visit to Dr. Albert Schweitzer's clinic in North Africa and other medical installations in New Delhi and Bombay, India, and Tokyo, Japan. He gave a lecture at the University of California on "Occupational Pulmonary Diseases" upon his return this month.

* * *

Thirty members of the Southern Gynecological and Obstetrical Travel Club attended a special two-day program at The University of Michigan Medical Center, February 2 and 3. The Department of Obstetrics and Gynecology was host to the group. Both operative and lecture programs were presented, with meetings held in the Women's Hospital and the Rackham building. Club members tour the country and visit leading Medical Centers specializing in their field of interest.

* * *

Appointment of five clinical associates to the staff of The University of Michigan Medical School's Department of Pediatrics was approved by the Regents Friday, January 16, 1959. The five appointees will have the

privilege of private in-patient care at University Hospital and also will take part in the teaching program of the department. The appointments, all without salary, are for the period from September 1, 1958 to June 30, 1959.

* * *

Isadore Lampe, M.D., professor of radiation therapy in the University of Michigan Medical School, Department of Radiology, has been granted a sabbatical leave from June 15 to December 15, 1959. He will spend the six months visiting radiotherapeutic centers in Great Britain, France, Denmark, Norway, Sweden, Canada and the United States.

* * *

Frank Whitehouse, Jr., M.D., instructor in the Department of Bacteriology, was granted leave for three months from January 1 to March 31, 1959, without salary. During this period, he has been in charge of the dental course in bacteriology at The Ohio State University.

* * *

The American Association of Railway Surgeons will hold its 71st Annual Meeting at the Drake Hotel, Chicago, on Thursday, Friday and Saturday, April 16, 17 and 18, 1959. This meeting will be held jointly with the Surgeons of the Chicago & North Western Railway.

Panel discussions will be held on "Peripheral Vascular Diseases" and on "Gastric Lesions." There will be other papers on gastroenterology and two papers on pulmonary lesions. Problems in the management of pancreatitis and melanomas will be given. Present day evaluation of antibiotics and the dissemination of cancer cells by radical surgery should prove extremely interesting. Other papers will deal with dermatological, neuropsychiatric, orthopedic, and medical-legal problems.

* * *

The Association of American Physicians and Surgeons, representing the nation's physicians in medical economics, public relations, legislation and freedom, will hold its sixteenth annual meeting of the Assembly and Delegates at Fort Worth, Texas, April 2, 3 and 4, 1959.

Ten speakers will be presented during the three days. The sessions will be presided over by Mal Rumph, M.D., President of AAPS, whose home is in Fort Worth. Some of the distinguished speakers to appear are: C. Hamilton Moses (Little Rock, Arkansas), President of the Arkansas Power and Light Company; Kent Courtney (New Orleans, La.), Publisher of The Independent American; Dr. Howard A. Nelson (Greenwood, Miss.), a past president of the Mississippi State Medical Association.

* * *

The Society of Nuclear Medicine will hold its sixth annual meeting at the Palmer House, Chicago, Illinois, Thursday, Friday, and Saturday, June 18-20, 1959. Members of the Society and guests desirous of participating in the scientific program should submit titles and abstracts, of no more than 250 words, to Donald W. Petit, M.D., Program Chairman, University of Southern California, School of Medicine, 1200 North State Street, Los Angeles 33, California.

The first national Youth Conference on the Atom will take place in Atlantic City, N. J., on April 30 and May 1. The purpose of the conference is to present to the nation's most able high school science students and teachers an authoritative picture of the peaceful atom in all its various applications, and probably more important, to help advance interest in the study of science among the nation's youth.

Some 500 students and teachers from high schools all over the country will participate in the conference, and they will represent winners of local science fairs, special written examinations, and in other ways, the top science students in the country.

* * *

One of the highest student honors—selection by a medical honorary society to present reports on their own research at an open forum—went to eleven students at The University of Michigan Medical School, who delivered papers at the fifth annual Medical Student Research Forum held at the University of Michigan Hospital, February 17. The students chosen to present reports were: Paul Goodman, Marvin E. Klein, and Sheldon F. Markel, all of Detroit; Robert E. Richardson, East Lansing; Edward Dietrich, Jonesville; David DeJong, Holland; Richard Humphrey, Marshall; Burton Perry, Midland; and Conrad A. Proctor, Pontiac. Also selected were Ronald Wade, Toledo, Ohio, and Doris Thompson, Lake Charles, Louisiana.

Benjamin M. Lewis, M.D., of Wayne State University College of Medicine, has been chosen by the Lederle Medical Faculty Awards committee as recipient of one of their 1959-60 awards. An assistant professor of medicine, Dr. Lewis will receive $12,787.50.

The award is given to persons nominated by their school as having outstanding qualities in the teaching of preclinical or clinical subjects. The Lederle awards plan is designed to assist medical faculty in their work and further their teaching and research.

In addition to his teaching, Dr. Lewis is developing a technique by which the resistance of the pulmonary membrane to diffusion can be measured in heart failure.

* * *

The American Board of Obstetrics and Gynecology announces that the next scheduled examinations (Part II), oral and clinical, for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1960 examinations is August 1, 1959. Candidates may submit their applications at

any time before that date to Robert L. Faulkner, M.D., Secretary-Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

JAMES W. LOGIE, M.D.

James W. Logie, M.D., Grand Rapids, has been appointed General Chairman of Arrangements for the 1959 MSMS Annual Session to be held in Grand Rapids the week of September 27, 1959.

* * *

The Annual Postgraduate Course in Cardiology of St. Francis Hospital, Roslyn, New York, will be held April 6-18, with the first week devoted to diagnostic and medical problems in the management of patients with congenital and rheumatic cardiac disorders. The second week will be devoted to cardiovascular surgery concentrating primarily on the same abnormalities.

For program, write the Administrator of the hospital.

* * *

The Frank E. Bunts Educational Institute, affiliated with The Cleveland Clinic Foundation in conjunction with the Cleveland Society of Pathologists, is offering a postgraduate course on Clinical Pathology, April 2 and 3, in the North Clinic Building, Euclid Avenue and East 93rd Street, Cleveland. Registration fee is $20. For information and advance registration, write Education Secretary, Frank E. Bunts Educational Institute, 2020 E. 93rd Street, Cleveland 6, Ohio.

* * *

The Research Committee of the National Society for the Prevention of Blindness invites requests for research grants in 1959. Grants will be made this spring for requests received prior to May 1. Inquiries should be addressed to Research Committee, National Society for the Prevention of Blindness, 1790 Broadway, New York 19, N. Y.

* * *

Jerome W. Conn, M.D., Professor of Internal Medicine at the University of Michigan Medical Center, Ann Arbor, has been elected to Honorary Fellowship in the American College of Surgeons.

Congratulations, Doctor Conn!

* * *

Robin C. Buerki, M.D., Detroit, and **John S. DeTar, M.D.,** Milan, were participants on the program of the recent Congress on Medical Education and Licensure in Chicago, February 7-10.

The Fourteenth Annual Cancer Day of the Genesee County Medical Society is scheduled for Wednesday, April 22, Merliss Brown Auditorium, Hurley Hospital, Flint. The program includes:

"Extended Operations for Cancer of the Stomach and Colon and the Second Look"—Owen H. Wangensteen, M.D., Minneapolis, Minn.

"Melanoblastoma"—George T. Pack, M.D., New York, N. Y.

"The Current Status of Cancer Research"—Freddy Homburger, M.D., Cambridge, Mass.

"Some of the Surgical Pathologist's Cancer Problems"—Raffaele Lattes, M.D., New York, N. Y.

"The Current Status of Interstitial Irradiation"—Ulrich Henschke, M.D., New York, N. Y.

"Head and Neck Cancer as Seen in the Oral Cavity"—Danely P. Slaughter, Chicago, Ill.

* * *

A course on "The Technique of Anorectal and Sigmoidoscope Examination" is being offered by the Department of Surgery, Wayne State University College of Medicine, on Wednesday afternoon, April 15, and Thursday, April 16. Lectures, demonstrations, and panel discussion practical clinics at Receiving, Harper and Grace Hospitals, are limited to fifteen persons. Registration fee is $25. Make advance registration to Registrar's Office, Wayne State University College of Medicine, 1401 Rivard, Detroit 7.

The Eighth Congress of the Pan-Pacific Surgical Association will be held in Honolulu, Hawaii, September 28 through October 5, 1960. For information and brochures, write F. J. Pinkerton, M.D., Director General of the Pan-Pacific Surgical Association, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

* * *

The 1959 meeting of the American Goiter Association is scheduled for April 30-May 1-2 at the Drake Hotel, Chicago. For information, write John C. McClintock, M.D., Secretary, 149½ Washington Avenue, Albany 10, New York.

* * *

Lester P. Dodd, Detroit, MSMS Legal Counsel, spoke to a joint meeting of the Monroe County Medical Society and the Monroe County Bar Association on February 3. His subject was "The Basic Professions—Interdependent."

* * *

M.D. Locations, through December 31, 1958:

Placed by Michigan Health Council—Allan S. Hubacker, M.D., Frankfort; Robert C. Rood, M.D., Ionia.

Assisted by Michigan Health Council—Gerald W. Morris, M.D., Mt. Clemens.

* * *

Business Activities Tax.—The Michigan Department of Revenue reports that returns have been mailed to all registered taxpayers. These are due March 31, 1959.

Any person having gross receipts in excess of $20,000 annually from any source is subject.

Check with your accountant to be sure you are complying with the law and filing returns, so you can avoid the 25 per cent penalty.

Any questions should be addressed to the Michigan Department of Revenue, Tussing Building, Lansing, Michigan.

* * *

Short refresher courses in pediatrics will be given during May and June by the Children's Hospital of Philadelphia and by the Graduate School of Medicine, University of Pennsylvania. For information write Irving J. Wolman, M.D., 1740 Bainbridge Street, Philadelphia 46, Pa.

* * *

The Wayne State University College of Medicine Clinic Day and Alumni Reunion is scheduled for Wednesday, May 13, at the Pick-Fort Shelby Hotel, Detroit. Sixteen ten-minute papers plus a panel will be presented by members of the faculty of the College of Medicine. Reception and banquet will follow the meeting. Reservations for the banquet and dance at $7.50 per person may be mailed to C. Jackson France, M.D., 17712 Mack, Detroit.

* * *

The Michigan Epilepsy Center and Association has a new brochure and index card describing its services. A copy will be mailed soon to every member of the Michigan State Medical Society.

* * *

The Seventh Bahamas Medical Conference will be held at The British Colonial Hotel, Nassau, Bahamas, March 30 to April 11. Make reservations by writing Bahamas Conferences, P.O. Box 4037, Fort Lauderdale, Florida. Participants in the conference and their families enjoy the special hotel rates, provided reservations are made directly and not through travel agents.

When making hotel reservations, a check in the amount of $75.00, payable to the Bahamas Conference, should be sent. This is the registration fee, not a deposit on the hotel bill.

* * *

Mrs. Lucy W. Bartlett was honor guest at the annual meeting of the Muskegon County Medical Society. Mrs. Bartlett was recognized for eleven years of service as executive secretary of the Society. The December issue of *The Bulletin* was dedicated to Mrs. Bartlett, widow of the late Hubert Bartlett, M.D.

* * *

Ruth E. Wagner, M.D., South Oakland County's first woman physician, is Michigan's Medical Woman of the Year. Doctor Wagner, of Royal Oak, was given the award November 16 during the American Medical Women's Association convention in Washington, D. C.

* * *

Harry M. Nelson, M.D., Detroit, chairman of the Michigan Cancer Co-ordinating Committee, has been appointed as chairman of the Committee on Registries and Central Registries of the American College of Surgeons Committee on Cancer. Doctor Nelson is also a

member of the Executive Committee of the ACS Committee on Cancer.

* * *

O. A. Brines, M.D., Detroit, will address the Lenawee County Medical Society, March 31, at Adrian, on the subject: "Lung Cancer and the Effect of Cigarettes." Dr. Brines, Professor of Pathology at Wayne State University College of Medicine, will present his talk under the aegis of the Michigan Cancer Co-ordinating Committee.

* * *

Michigan Rural Health Conference will be held Wednesday and Thursday, April 8 and 9, at Kellogg Center, East Lansing. Safe roads to health—the medical aspects of highway safety and management of the injured will be discussed during the "Professional Day" program of the 12th Annual Michigan Rural Health Conference, Thursday morning, April 9, 10:00 a.m. to 12:00 noon.

Program

"Medical Aspects of Highway Safety"
John R. Rodger, M.D., Bellaire, Chairman, MSMS Committee on Study of Prevention of Highway Accidents;
William A. Mann, Ed., D., East Lansing, Associate Professor, Highway Traffic Safety Center, Michigan State University; and
John O. Moore, New York, Director, Automotive Crash Injury Research, Cornell University

"Chest Injuries"
Herbert E. Sloan, Jr., M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Head Injuries"
Richard C. Schneider, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Injured Extremities"
Robert W. Bailey, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Abdominal Injuries and Shock"
Thomas C. Flotte, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

The speaker for the annual banquet, Wednesday evening, April 8, is Arthur S. Flemming, of Washington, D. C., Secretary of Health, Education and Welfare.

Harry A. Towsley, M.D., Ann Arbor, is general chairman of the meeting. The Conference is sponsored by the Michigan Foundation for Medical and Health Education and co-sponsored by the Michigan Health Council and more than 100 other health organizations.

* * *

LAWRENCE REYNOLDS, M.D.

Lawrence Reynolds, M.D., of Detroit, received an additional honor on February 6, 1959, when he assumed the presidency of the American College of Radiology at the Charlottesville, Virginia, meeting.

The thirty-sixth President of the ACR is chairman of the Department of Radiology, Harper Hospital, Detroit, and has been longtime editor of the *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.*

Congratulations, Doctor Reynolds!

Michigan doctors who participated in the scientific program at the AMA Tenth Clinical Meeting in Minneapolis, December 2-5, 1958, included: Wm. H. Beierwaltes, M.D., Ann Arbor; M. A. Block, M.D., Detroit; B. E. Brush, M.D., Detroit; Russell N. DeJong, M.D., Ann Arbor; W. L. Lowrie, M.D., Detroit; W. E. Redfern, M.D., Birmingham; John W. Sigler, M.D., Detroit; and John M. Weller, M.D., Ann Arbor.

The following MSMS members took part in the scientific exhibit: Ronald C. Bishop, M.D., Ann Arbor; J. B. Bryan, M.D., Detroit; Frank Cox, Jr., M.D., Detriot; H. L. Johnson, M.D., Detroit; E. A. Kish, M.D., Detroit; Donald R. Krost, M.D., Ann Arbor; W. L. Lowrie, M.D., Detroit; Glenn Moore, M.D., Flint; Hubert C. Peltier, M.D., Kalamazoo; E. L. Quinn, M.D., Birmingham; W. E. Redfern, M.D., Birmingham; John W. Sigler, M.D., Detroit; Harold L. Upjohn, M.D., Kalamazoo; F. W. Whitehouse, M.D., Detroit; and Franklin V. Wade, M.D., Flint.

Other Michigan doctors who attended the recent AMA meeting are: Donald T. Anderson, M.D., Iron Mountain; Warren W. Babcock, M.D., Detroit; D. R. Ballard, M.D., Dearborn; Ralph Blocksma, M.D., Grand Rapids; Beatrice Bolan, M.D., Marquette; Peter Brachman, Jr., M.D., Allegan; William Bromme, M.D., Detroit; Louis Carbone, M.D., Detroit; Doris E. Dahlstrom, M.D., Kalamazoo; Milton A. Darling, M.D., Detroit; John S. De Tar, M.D., Milan; George R. Eichler, M.D., USAF; George J. Falbisaner, M.D., Grand Rapids; Hilda A. Habenicht, M.D., Jackson; Wilfrid Haughey, M.D., Battle Creek; Willis H. Huron, M.D., Iron Mountain; William A. Hyland, M.D., Grand Rapids; O. J. Johnson, M.D., Bay City; Eldred H. MacDonell, M.D., Detroit; Robert L. Novy, M.D., Detroit; Carl J. Olson, M.D., Gladstone; Clarence I. Owen, M.D., Detroit; E. Theodore Palm, M.D., Crystal Falls; Grover C. Penberthy, M.D., Detroit; Earl C. Potter, M.D., L'Anse; F. P. Rhoades, M.D., Detroit; D. L. Rousseau, M.D., Mt. Clemens; G. B. Saltonstall, M.D., Charlevoix; G. W. Slagle, M.D., Battle Creek; and Robert E. Wetterstroem, M.D., Northville.

* * *

Medical Television Shows produced by Michigan Health Council:

1958

December 7—Skin Disease and Veterinary Medicine—(Film—"Dermatology and Veterinary Medicine")

December 14—Geriatrics—(Film—"Geriatrics")

December 21—Tuberculosis Christmas Seals—(Film—"For Within Man's Power")

December 28—Traffic Safety—(Film—"According to the Record")

1959

January 4—"The Impact of Medical Progress"—(Film)

January 11—"Human Speech"—(Film)

January 18—"Hormones"—(Film)

January 25—Health Careers—(Films—"Medical Associates" and "Careers in Bacteriology")

* * *

DOCTORS DAY—UNIVERSITY OF MICHIGAN—MAY 16

Michigan's seven thousand physicians and surgeons are invited to attend a special "Doctors Day" to be held at The University of Michigan Medical Center on May 16.

The day-long program, first of its kind to be held at the University, will include special exhibits, lectures, clinical tours and closed-circuit TV broadcasts of surgical techniques.

Chairman of the planning committee is Earl F. Wolfman, Jr., M.D., of the Medical Center staff. Gilbert B. Saltonstall, M.D., president of the Michigan State Medical Society, has accepted honorary chairmanship for the event.

Tour of New Medical Center

According to Dr. Wolfman, the purpose of "Doctors Day" is to establish a special day in which doctors, alone, will have an opportunity to see the resources of the U-M Medical Center. "Also," he said, "we hope to encourage a closer personal association between physicians throughout the state and the professional staff of the Center."

The "Day" will begin at 9 a.m. with welcoming talks by A. C. Furstenberg, M.D., dean of the University of Michigan Medical School, and A. C. Kerlikowske, M.D., director of University Hospital.

Following luncheon in the hospital, the visitors will select any of the special programs being arranged by each of the major clinical services.

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 1, Number 3. Symposium on Special Diagnostic Aids: Edited by C. Paul Hodgkinson, M.D. Symposium on Abnormal Uterine Bleeding: Edited by John I. Brewer, M.D. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1958.

This book is the third in a series on Clinical Obstetrics and Gynecology. The subject matter is divided into Abnormal Uterine Bleeding which is edited by John I. Brewer, M.D., and Special Diagnostic Aids which is edited by C. Paul Hodgkinson, M.D. Although there is some repeating of subject matter of the previous books in this series, the diagnostic aids are grouped to give a complete summary of the methods of diagnosis. The first of these two symposia has excellent chapters on the Development of Uterine Cancer and its diagnostic procedures, Culdocentesis, Gynogram, Placentography, Cytology and the Papanicolaou Smear and Biopsy. These are very complete and of interest not only to the specialist, but also to the general practitioner. The second symposium gives a complete picture of Abnormal Uterine Bleeding from infancy and childhood through the post-menopausal period. This series is one of the best texts for the busy practitioner to keep abreast of modern thinking in gynecology.

J.R.P.

CIBA FOUNDATION COLLOQUIA ON AGING. Volume 4. Water and Electrolyte Metabolism in Relation to Age and Sex. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A. 85 illus. Boston: Little, Brown and Company, 1958. Price, $8.50.

The developing organism is presented with time out for senescence and disease. More than a score of consultants are quoted. Their broad fields range from genetic control of electrolyte metabolism in the erythrocytes to the hormonal aspects of water metabolism, relating to age and sex, with reference to sodium and potassium elimination.

Electrolytes enter into practically every reaction that takes place in the body. The knowledge of a few is pooled for the many. The ready corrections of water excesses and deficits result from specific response systems for diuresis and water intake. Plasma osmolarity is significantly higher than that of extracellular fluid. With electrolyte imbalance the decrease in cellular water is reflected in a rise of extracellular fluid. The active transport of sodium is linked to that of potassium.

Water deficiency, or sodium excess, produces hypernatraemia with the possibility of tubular dysfunction in the dehydrated infant. Water excess, or sodium deficiency, produces hyponatraemia. Fluid volume and electrolyte control are notoriously inefficient in neonates. Total body water relative values decrease in old age for both sexes, with the male holding the higher content.

The composition of the fat-free body tends to achieve an independence from its environment, once chemical maturity is reached. The experts attempt to outguess the human organism in reflecting age upon the body's

tolerance for fasting, thirsting, overloading with water and electrolytes.

A healthy adult, partaking of a "normal" diet, produces more non-volatile anions than cations. The "surplus anions" are excreted by the kidney, employing combinations with titratable hydrogen ions or ammonium salts. As age advances, the discrete renal function decreases with nephron diminution. Yet, if the physical demand is not too insulting, the elderly kidney may still regulate both volumes and concentrations quite satisfactorily.

Senescence, however, is a deterioration in homeostasis. Thus, in nephron disease, we may expect renotrophic stimuli, overactivity of the adrenal cortex and hypertension.

With increasing age, the functional capacity of both lungs and kidneys decline. Respiration is embarrassed by further rigidity of the chest wall. In congestive failure, the impaired renal function serves as the genesis of abnormal water and electrolyte metabolism. Great clinical significance should be attached to cellular potassium depletion. Chemical analysis may be obtained by muscle biopsy specimens. Potassium salts should be administered, especially when mercurial diuretics are employed. Clinical magnesium depletion in man is rare.

The human body is to be congratulated upon its ability generally to detect a deviation from a normal condition. However, in later years, even Shakespeare recognized that "age hath drunk man's blood and filled his brow with lines and wrinkles."

Don't let the molecules alarm you. There is much lively human discussion at the termination of each chapter.

C.H.R.

LESIONS OF THE LOWER BOWEL. By Raymond J. Jackman, M.D., M.S. in Proctology, Head of the Section of Proctology, Mayo Foundation, Graduate School, University of Minnesota, Rochester, Minnesota. 347 pages. Illus. Price $15.50. Springfield, Illinois: Charles C Thomas, 1958.

This book presents, for the first time in words and color photographs, a rather complete story of the common and uncommon lesions of the lower bowel. Although the major emphasis is on diagnosis, there is enough ancillary information to give the reader a fairly comprehensive picture of this field of medicine. Written by a clinician of long experience and excellent judgment, the book is a succinct and honest appraisal of the subject. In an era when proctosigmoidoscopy is assuming its proper role as a diagnostic aid, this volume can be recommended to all physicians. Every chapter is loaded with nuggets of important clinical data that few physicians would be able to glean for themselves.

It is difficult for this reviewer to single out certain chapters for special comment. The chapter on the Technic of Proctoscopy, however, could be called one of the highlights of the book. The Color Atlas which contains a rare and beautiful collection of clinical photographs is outstanding and should be studied by the student and clinician alike.

As a fellow proctologist, this reviewer wishes to thank Dr. Jackman for this meritorious contribution to proctologic literature. This book can be recommended highly to all physicians and students interested in intestinal diseases.

WILLIAM C. BERNSTEIN, M.D.

AMID MASTERS OF TWENTIETH CENTURY MEDICINE; A PANORAMA OF PERSONS AND PICTURES. By Leonard G. Rowntree, M.D. 684 pages. Illus. Price, $11.50. Springfield, Illinois: Charles C Thomas, 1958.

This is an excellent résumé of Dr. Rowntree's experience during his active years in medicine. It is particularly interesting to physicians in Minnesota because of the large amount of space devoted to the time he spent both as Professor of Medicine at the University of Minnesota and Chief of the Division of Medicine at Mayo Clinic.

Dr. Rowntree exemplifies the truly great physicians whose knowledge was not limited to medicine alone but enveloped all of the allied fields as well as the humanities.

The book is well illustrated, the paper is excellent, and the printing of the usual high quality one expects from the Thomas publishers.

This book makes pleasant reading and relates many interesting and personal anecdotes concerning the great of this century.

JOHN F. BRIGGS, M.D.

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

WANTED ASSOCIATE: Michigan growing General Practice. Fine community of 3,000, short drive from modern 80-bed hospital. Full hospital privileges can be expected, commensurate with training and ability. Easy driving distance from universities and metropolitan areas. Reply: Box 4, 606 Townsend Street, Lansing 15, Michigan.

MICHIGAN DEPARTMENT OF MENTAL HEALTH is interested in obtaining additional staff physicians who are willing to accept the challenge of providing the best medical treatment available for its charges. Excellent opportunities for energetic, talented, ambitious medical doctors. Clinical supervisory positions as well as administrative positions available to those who meet the necessary qualifications. Salary to $16,000 depending upon qualifications. Many job benefits, including sick and annual leave, retirement, longevity compensation as well as merit increases. For further information contact V. A. Stehman, M.D., Deputy Director, Cass Building, Lansing, Michigan.

WANTED: Pediatrician, Board-eligible or certified for partnership with 35-year-old pediatrician. Practice established five years. In western Michigan—excellent living and recreational facilities. Write: Box 3, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

DIRECTOR OF INTERNAL MEDICINE—Board certified—to head department of 500-bed general hospital, located 17 miles west of downtown Detroit. Salary range $15,746-$17,066 (effective June 29, 1959). Contact: Wayne County Civil Service Commission, 628 City-County Bldg., Detroit 26, Michigan.

LOCUM TENENS WANTED—Third year resident in Internal Medicine at University Hospital would like vacation work in practice of Internal Medicine during June 1959. Write: G. Gwinup, M.D., 1461 University Terrace, Ann Arbor, Michigan.

SOUTHWESTERN MICHIGAN town of 6000, close to Chicago. $40,000 annual gross. Cost of equipment and supplies. Leaving to specialize. Will introduce. Write: Box 7, 606 Townsend Street, Lansing 15, Michigan.

IONIZING RADIATION

(Continued from Page 448)

ionizing radiation to register on forms available from the department. With each registration form, the department includes a copy of the regulations.

Although the regulations have been in effect for only a little more than a year, the department has experienced good co-operation and has made excellent progress toward registration of all sources of ionizing registration. The accompanying table summarizes the results as of the end of 1958. Based upon the estimated number of users of x-ray equipment, 100 per cent of the industries have registered their equipment, about 90 per cent of the dentists and chiropracters, about 80 per cent of the M.D.'s and D.O.'s, about 60 per cent of the hospitals, about 45 per cent of the chiropodists, and about 30 per cent of the veterinarians.

An interesting sidelight is the fact that, on the evidence of a sample survey, the number of fluoroscopic x-ray machines in shoe stores has dropped sharply since the regulations were put into effect. The regulations prohibit the use of these machines for any person under the age of eighteen.

Index to Advertisers

Abbott Laboratories ..... Insert (313, 314), 315, 316, 317, 318, 319
American Cancer Society 486
Ames Co., Inc. ..... Cover III
Arlington-Funk Laboratories 330, 331
Astra Pharmaceutical Products, Inc. 453
Ayerst Laboratories 461

Barry Laboratories 471
Bayer Co. 360
Brighton Hospital 478
Burroughs Wellcome & Co. ..... Insert (473, 474)

Central Laboratory 482
Central Pharmacal Co. ..... Insert (463, 464)
Ciba 311, 329, 358
Classified Advertising 488
Coca-Cola 481

Endo Laboratories 459

Fischer, H. G., & Co. 482

Geigy 457
Green Acres 472

Hack Shoe Co. 480
Haven Sanitarium 487
Hotel Olds 488

Ingram, G. A., Co. 456, 460

Lederle Laboratories 301, 336, 337, 355, 394, 395, 447, 450, 451, 466, 468, 470
Lilly, Eli, & Co. 362

Marion Laboratories, Inc. 467
Mead Johnson 349
Medical Arts Supply Co. 454
Medical Protective Co. 488
Medical Supply Corporation 462
Merck Sharp & Dohme ..... 298, 332, 333, Insert (343-346), 356, 449
Mercywood Sanitarium 489
Meyer & Co. 479

Noble-Blackmer, Inc. 477

Parke, Davis & Co. ..... Cover II, 297
Pfizer Laboratories, Div. Chas. Pfizer & Co. 306, 307 341, 359
Physicians Casualty & Health Associations 486
Plainwell Sanitarium 487
Professional Management 480

Randolph Surgical Supply Co. 469
Robins, A. H., Co. 304, 305, 357
Roerig 309, 320, 321, 334, 353

Sammond Pleasant Lodge 484
Schering Corporation ..... Insert (323-326), 361
Sealtest 483
Searle 441
Smith-Dorsey 347, 393, 455, 465
Smith, Kline & French Laboratories ..... Cover IV
Squibb 356, 490

Tutag, S. J., & Co. 476

Upjohn 302, 303, 396
U. S. Vitamin Corporation 330, 331

Vent-Air Contact Lens Laboratories 475
Vernor's Ginger Ale 485

Wallace Laboratories 327, 339
Winthrop Laboratories ..... Insert (443-446)
Wyeth 351